

OUR EYES

JOHN BROWNING

F. R. A. S.

THIRTEENTH THOUSAND

PRICE ONE SHILLING

M20464

W. L. Cowdry.



22101806202



OUR EYES

2615

8401140



M20464

WELLCOME INSTITUTE LIBRARY	
Coll	wel130mec
Cat	
No.	WW100
	1889
	B880

TO
MY ESTEEMED FRIEND,
DR. BENJAMIN WARD RICHARDSON,
M.A., M.D., LL.D., F.R.S., ETC., ETC.,
WHOSE NOBLE LIFE HAS BEEN PASSED IN
ALLEVIATING THE SUFFERING OF MAN AND HIS DUMB
FELLOW-CREATURES,
THIS LITTLE BOOK IS DEDICATED.



PREFACE TO THE THIRD EDITION

IN writing this little book, my endeavour has been to set down, *in the simplest words I could find that would express my meaning*, the results of the experience I have gained in the construction and adaptation of spectacles during the last thirty years.

The first edition was sold in two or three weeks, and to my regret the publishers had to issue a second edition without alteration. This second edition is also now exhausted.

The press generally has noticed the book so favourably that I have been encouraged to revise it carefully, and make great additions to it, as well as to considerably increase the number of the illustrations.

I trust these alterations will make the book more valuable, and that an equally favourable reception will be accorded to this new edition.

JOHN BROWNING.

November, 1884.

PREFACE TO THE SEVENTH EDITION.

Six editions having now been rapidly called for, and the book having been for some time out of print, the SEVENTH edition has been in great part rewritten. As compared with the first edition it contains almost twice the amount of matter, and nearly double the number of engravings, yet, thanks to the enterprise of my publishers, the price has not been increased. The information respecting Short-Sight and Astigmatism has been much extended, and several new chapters added—among others, on Complaints of the Eye, on the Care of the Eyes in Riding or Driving, and on Ladies' Veils.

My sincere thanks are specially due to the numerous members of the medical profession who have consulted me themselves, and kindly recommended the previous editions of this book.

J. B.

35, ALFRED PLACE WEST,
SOUTH KENSINGTON, S.W.
January, 1889.

CONTENTS.

	PAGE
INTRODUCTION—ON THE ART OF SEEING	15
The almost Solid Appearance of Photographs, p. 15.—Importance of Spectacles, p. 16.	
DESCRIPTION OF THE HUMAN EYE	16
A simple Working Model of the Eye, p. 18.—Reading with the Book Upside-down, p. 18.—Is Seeing Believing? p. 19.—An Insensitive Part of the Retina, p. 19.—The Eye takes a Photograph of every Object it looks at, p. 19.	
A FEW WORDS ABOUT LIGHT	20
Light the Cause of all Colour, p. 20.—Proof of the above Assertion, p. 20.	
COLOUR-BLINDNESS	20
Number of Persons who are Colour-blind, p. 20.—Instance of Colour-blindness, p. 20.—Importance of testing Sailors, Engine-drivers, and Guards for Colour-blindness, p. 21.—A Spectroscope for detecting Colour-blindness, p. 21.	
COMPLEMENTARY COLOURS	21
How Complementary Colours are produced, p. 21.—Three Ways of mixing Colours, p. 22.—The Colour-Top, p. 22.—Impure Colours, p. 23.—Use of the Spectroscope for detecting Blood, p. 23.	
HOW TO PRESERVE OUR EYESIGHT	24
How to look through a Microscope, p. 24.—How to look through a Telescope, p. 25.—To adjust a Bright Lamp Flame, p. 25.	
HOW TO READ BY LAMPLIGHT	25
The Importance of Position with regard to the Lamp, p. 26.—Reading by Firelight, p. 29.	
GENERAL CARE OF THE EYES	30
The Value of Tinted Writing-Papers, p. 30.—The Use of the Type-Writer, p. 30.—Bad Effect of Wire-gauze Window-blinds, p. 31.	
THE CARE OF INFANTS' AND CHILDREN'S EYES	31
Exposing Children's Eyes to Sunlight, p. 31.—Effects of Deficient Light in Schools in producing Short-sightedness, p. 32.	
THE USE OF COLOURED GLASSES	32
The Choice of Different Colours, p. 32.—Defects in Coloured Glass used for Optical Purposes, p. 32.—Coloured Glass Spectacles or Folders should be used at the Sea-side, p. 33.—For Reading, p. 34.	

	PAGE
WHEN SPECTACLES ARE REQUIRED	34
The Age at which Spectacles become necessary, p. 35.—Bad Results of postponing the Use of Spectacles, p. 36.—"Bradshaw Blindness," p. 36.—Proper width of Spectacles, p. 38.—Evil Effects of wearing Single Eye-glasses, p. 43.—Danger of wearing Reading Spectacles while Walking, p. 43.—Spectacles should be always of the Full Strength wanted to give Easy Vision without Strain, p. 44.—The Eyes frequently differ in Focus, p. 46.—Astigmatism seldom corrected, p. 47.	
BROWNING'S METHOD OF TESTING THE SIGHT	49
The Optometer, p. 49.—The Width-Measurer, p. 49.—The Short-sight Test-Lenses, p. 50.	
SHOT-PROOF SPECTACLES	52
OLD-SIGHT	53
Spectacles <i>generally</i> required at about 45 to 47 Years of Age, p. 53.—There is no Fixed Age at which they become Necessary, p. 53.—The Reason Spectacles are required, p. 54.—Diagrams showing the Use of Convex Lenses in Long-Sight, pp. 53, 54.	
THE BEST DISTANCE FOR READING	55
Supposed Superiority of Periscopic Lenses, p. 56.—Diagrams showing the Superiority of Double Convex Lenses, p. 57.—Spectacles with Stronger Lenses should be used to read at Night-time than are required by Daylight, p. 58.—Still Stronger Spectacles for very Minute Writing or Drawing, and for Reading excessively Small Print, p. 58.—Pebbles should be cut at Right Angles to the Axis of the Quartz Crystals, p. 59.	
LONG-SIGHT	61
Long-Sighted Persons cannot see Objects plainly, either close or distant, p. 61.	
SHORT-SIGHT	62
Short-Sight to some extent Hereditary, p. 62.—Often produced by Reading in an Imperfect Light when Young, p. 62.—Diagrams showing the Use of Concave Lenses in Short-Sight, pp. 62, 63.—Should never be neglected, p. 63.—Two Pairs of Spectacles required in Short-Sight : one for Walking or Riding, and one for Reading, p. 63.—Short-Sight does not always decrease with Age, p. 64.—The Use of a Binoocular for saving the Eyesight, p. 68.	
TEST TYPES	68
A Simple Method of Testing the Eyesight to determine whether Spectacles are required, p. 68.	
HOW TO TEST THE SIGHT	70
Testing with Small Figures, p. 70.—The Distance at which People should read varies, p. 70.—Anecdote of an American Judge, p. 71.—Injury to the Sight caused by the Use of Improper Spectacles, p. 71.—Three Anecdotes of such Injury, p. 72.—Mistakes made in testing the Vision by so-called Opticians, p. 73.—The Responsibility of an Optician as regards Eyesight, p. 74.—Testing the Eyes both an Art and a Science, p. 74.—The Eye is not simply an Optical Instrument, but a Complex Physiological	

Organ, p. 74.—Peculiarities in the Eyes caused by Difference of Constitution, p. 74.—Persons who have, according to the usual Tests, the same Eyesight cannot always wear the same Spectacles, p. 74.—Dilating the Pupil of the Eye before Testing condemned, p. 75.—Instance of Mischief caused by Atropine and Belladonna, p. 75.—Spectacles which give the Clearest Vision are not always Suitable, p. 75.—An Oculist's Spectacles with which a Patient could not see, p. 75.

ASTIGMATISM 76

In Cases of Astigmatism Lines can be seen much plainer in one Direction than in another, p. 76.—Tests for the Detection of Weak or Slight Astigmatism, p. 76.—Browning's very Delicate Test for Astigmatism, p. 78.—Can be detected by means of a Clock-Dial, p. 80.—How it can be corrected, p. 80.

IRREGULAR ASTIGMATISM 81

SPECTACLES AND FOLDERS COMPARED 81

Comparative Advantages and Disadvantages, p. 81.—Folders not likely to be mislaid or lost, p. 82.—Folders more easily removed, p. 82.—Not so frequently worn when unnecessary, p. 82.—The Use of Folders greatly on the increase, p. 82.—Both can be used by the Same Person with Benefit, p. 82.

NEW FORM OF FOLDERS 83

The Value of Spring-Folders with Tinted Lenses for preserving the Eyes, p. 87.

UNEQUAL VISION 87

Method of Testing by the Optometer, p. 87.—The Best Means of Equalizing the Vision by Spectacles, p. 87.—The Full Correction of the Inequality not always Beneficial, p. 87.—The Correction may be gradually increased, p. 87.—A Case described, p. 88.—Curious Experiment with Unequal-sized Images in a Stereoscope, p. 89.—Experiment with Coloured Discs, p. 89.—Percentages of Unequal Vision determined at a Meeting of the British Association, p. 89.—The Left Eye generally the Weakest, p. 90.—Suiting the Sight from a Tray of Spectacles, p. 90.—Both Eyes are seldom the same, p. 90.—People having greatly Unequal Vision seldom suspect it, p. 90.—Remarkable Cases of Unequal Vision, p. 90.—Injurious Results of Unequal Vision when not properly corrected, p. 90.

UNSYMMETRICAL FEATURES 91

Necessity of making the Spectacles to fit the Face when there is any Want of Symmetry in the Features, p. 91.—Want of Symmetry in the Features much less noticeable when the Spectacles are made to conform to them, p. 91.—An Instance, p. 91.

SPECTACLES WITH INACCURATE LENSES 92

Spectacles Glazed with the Lenses of Different Focus when they should have been Alike, p. 92.—A Case described, p. 92.—Most Low-class Spectacles have Inaccurate Lenses, p. 93.

FRANKLIN'S SPECTACLES 94

Spectacles with Divided Lenses, p. 94.—Their Use, p. 94.—Of great Advantage, especially to Artists, p. 95.

	PAGE
ARTISTS' SPECTACLES	95
Artists' Work deteriorates after Middle Age for Want of Proper Spectacles, p. 95.	
HOW TO PUT ON SPECTACLES OR SPRING-FOLDERS	96
Best Position for Spectacles for Reading, Drawing, or Needlework, p. 96.—Reason why they must be taken off when walking, p. 96.—Spectacles and Folders are usually worn with the Lens for the Right Eye lowest on the Face, p. 96.	
THE CARE OF SPECTACLES	97
How Spectacles are Ill-used, p. 97.—Those who have used Spectacles which have been bent, cannot see at first through Spectacles which are quite symmetrical, p. 98.—Gold Spectacles can be kept in Shape best, and repaired the easiest, and are the Cheapest Wear in the End, p. 98.—How to clean Spectacle Lenses, p. 98.—Spectacles should be carried in Rigid Cases, p. 98.	
SINGLE EYE-GLASSES	99
Using Single Eye-Glasses prejudicial to the Sight, p. 99.—Leads to the Suppression of the Vision with One Eye, the Definition of which becomes impaired, p. 99.	
INVISIBLE SPECTACLES	99
Best Form described with Invisible Frames, p. 99.—The Mischief wrought by using instead <i>Frameless</i> Spectacles and Folders, p. 99.—Mistaken Economy in buying the Lowest Class of Spectacles made, p. 100.	
HOW TO BLIND YOURSELF	100
Reading in a Railway Carriage, p. 100.	
POPULAR KNOWLEDGE ABOUT THE EYES	101
Generally Wrong, p. 101.—Instances, p. 101.	
LADIES' VEILS	102
Are Veils beneficial or not to the Eyes, p. 102.—Reasons <i>pro</i> and <i>con</i> , p. 102.—On the whole the Use of Proper Veils advantageous, p. 102.—Spotted Veils injurious, p. 102.	
INFLAMMATION OF THE EYES	103
FATIGUE OF THE EYES	103
THE CARE OF THE EYES WHEN RIDING, DRIVING, OR CYCLING ..	104
COMPLAINTS OF THE EYE	106
Squinting, p. 106.—Cataract, p. 106.—Glaucoma, p. 107.—Hay Fever, p. 107.	
ON THE RAPID INCREASE OF SHORT-SIGHT AND OTHER FORMS OF DEFECTIVE VISION	107
HOW TO DIMINISH SHORT-SIGHT	108
Out-door Occupations for Short-Sighted Children, p. 109.—Short-Sighted Persons increase their Calamity, p. 109.	
INDEX	113

LIST OF ILLUSTRATIONS.

	PAGE
DIAGRAM OF THE EYE (Fig. 1)	17
OPTICAL MODEL OF THE EYE (Fig. 2)	18
DIRECT VISION SPECTROSCOPE (Fig. 3)	21
THE BEST FORM OF READING-LAMP (Fig. 4)	26
CORRECT POSITION TO READ BY LAMPLIGHT (Fig. 5)	27
WRONG POSITION TO READ BY LAMPLIGHT (Fig. 6)	28
READING BY FIRELIGHT (Fig. 7)	29
COLOURED GLASS EYE-PROTECTORS (Figs. 8, 9)	34
SPECTACLES TOO WIDE FOR THE EYES (Fig. 10)	38
SPECTACLE BRIDGES (Figs. 11-14)	38, 39
SPECTACLES TOO NARROW FOR THE EYES (Fig. 15)	39
SPECTACLES OF CORRECT WIDTH (Fig. 16)	39
SPECTACLES OF THE SAME PATTERN, VARIOUS SIZES (Figs. 17-22)	40
PANTASCOPIC SPECTACLES (Fig. 23)	42
ARTISTS' SPECTACLES FOR LONG-SIGHT (Fig. 24)	42
PULPIT SPECTACLES FOR SHORT-SIGHT (Fig. 25)	42
SPECTACLES WITH DOUBLE SIDES (Fig. 26)	42
SPECTACLES WITH HOOK SIDES (Fig. 27)	42
SPECTACLES WITH X BRIDGE (Fig. 28)	42
SPECTACLES WITH K BRIDGE (Fig. 29)	42
WEARING A SINGLE EYE-GLASS (Fig. 30)	43
IMPROPER USE OF SPECTACLES (Fig. 31)	44
THE OPTOMETER (Fig. 32)	49
THE WIDTH-MEASURER (Fig. 33)	49
SHORT-SIGHT TEST-LENSES (Fig. 34)	50
AXIS-CUT PEBBLE LENS SEEN WITH POLARISCOPE (Fig. 35)	51
ORDINARY PEBBLE LENS SEEN WITH POLARISCOPE (Fig. 36)	51
IMPERFECT CRYSTALS OF PEBBLE AS SEEN WITH A POLARISCOPE (Figs. 37-39)	51, 52

	PAG
SHOT-PROOF SPECTACLES (Fig. 40)	52
DIAGRAM SHOWING CAUSE OF OLD-SIGHT (Fig. 41)	53
DIAGRAM SHOWING OLD-SIGHT CORRECTED (Fig. 42)	54
PERISCOPIC LENS, ACTION ON LIGHT (Fig. 43)	57
DOUBLE-CONVEX LENS, ACTION ON LIGHT (Fig. 44)	57
HOW TO WEAR OLD-SIGHTED SPECTACLES FOR READING (Fig. 45)	61
DIAGRAM SHOWING CAUSE OF SHORT-SIGHT (Fig. 46)	62
DIAGRAM SHOWING SHORT-SIGHT CORRECTED (Fig. 47)	63
HOW TO WEAR SHORT-SIGHTED SPECTACLES FOR WALKING (Fig. 48)	66
SMALL BINOCULAR FOR SHORT-SIGHT (Fig. 49)	68
LENSES FOR CORRECTING ASTIGMATISM (Figs. 50, 51)	76
STRIPED LETTERS FOR DETECTING ASTIGMATISM (Fig. 52)	77
CIRCLES AND LINES FOR DETECTING ASTIGMATISM (Fig. 53)	77
DIAGRAMS FOR DETECTING ASTIGMATISM (Figs. 54-56)	78-80
A NEW FORM OF FOLDERS (Figs. 57-59)	84, 85
SPRING-FOLDERS OF VARIOUS SHAPES (Figs. 60-67)	85, 86
FRANKLIN'S SPECTACLES (Fig. 68)	94
SPRING-FOLDERS WORN AT AN ANGLE (Fig. 69)	97
PART OF A BROKEN SPECTACLE-EYE (Fig. 70)	100

OUR EYES.

THE ART OF SEEING.

“The eye cannot see when the mind is blind.”

Arab Proverb.

IT might at first thought appear that it cannot be necessary for any person to learn to see. A moment's consideration will show that this is a mistake. Before an artist can draw any object well, he must be able to see the most delicate lights and shades upon its surface. Years ago I was often surprised at the remark that “a photograph is much more beautiful than the landscape it was taken from.” Now I know the speaker *could not see* the landscape.

It is stated that a lady observed to the great artist Turner, pointing to one of his pictures, “Dear me! Mr. Turner, I never saw anything like that!” “No, madam,” answered Turner; “don't you wish you could?”

Those who are in the habit of using microscopes or telescopes can see an object or minute details which would not be visible to a person who looked through one of those instruments for the first time. The remark is frequently heard that a particular person is an excellent judge of some article. It will generally be found that the person can *see* differences in various samples of the article which are not visible to most people.

A good photograph of a statue appears almost solid. This is due entirely to the delicate *shades* being faithfully represented in the photograph. There are but few persons

whose sight would be keen enough to enable them to detect the whole of these shades on the original statue. This is the principal reason that a drawing, however beautiful or truthful, never looks as solid as a photograph.

I need do no more than briefly allude to the enormous extent to which the optician's art has increased the scope of our vision, enabling us by the aid of powerful telescopes to view objects at so great a distance that they would otherwise be invisible ; and, on the other hand, to see easily with powerful microscopes objects close to us which would also be invisible on account of their excessive minuteness, as well as by the aid of the spectroscope to determine the materials of which the sun and stars are composed. Yet the advantages gained from these contrivances are not so great to humanity as those derived from the use of spectacles as aids to failing vision.

During the last few years great improvements have been made in spectacles by skilful oculists and opticians, but of these improvements little or nothing is generally known.

My object is principally to give a popular account of these improvements and their application ; but I must begin by giving a brief description of the human eye.

Fig. 1 is a diagram of the eye, which shows the Cornea, the Iris, the Ciliary Muscle, the Crystalline Lens, the Aqueous Humour, the Retina, and the Choroid Coat.

The outer white coating of the eye is called the sclerotic coat, or sclerotica. The central portion of the eye is known as the cornea ; behind this is the iris, the coloured portion of the eye. There is an opening in the centre of the iris, known as the pupil ; this is simply an aperture through which light can pass. This aperture opens when the eye is in a faint light, and closes when it is exposed to a strong light. The space between the cornea and the iris is filled with a watery fluid. Just behind the iris is the crystalline lens. This is popularly supposed to be the pupil of the eye, and you have doubtless heard the expression, "having

the pupil taken out of the eye." Now, you could no more take the pupil out of an eye than you could take the key-hole out of a door, as it is simply an opening which admits light into the crystalline lens.

Outside the iris is the ciliary muscle, a ring of muscular fibre. This muscle makes the crystalline lens more convex whenever we look at an object within a few feet of us.

The whole space of the eyeball is filled with the vitreous humour, a jelly-like substance.

The back part of the inside of the eyeball is covered with

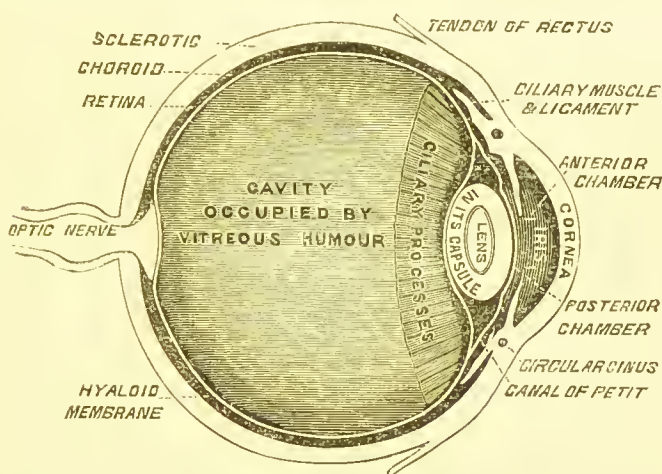


Fig. 1.

a most exquisitely sensitive nerve tissue, known as the retina. On this retina a picture of any object in front of the eye is formed. The optic nerve extends from the brain to the back of the eye, and small branches of it extend all over the retina. These convey to the brain the information as to the kind of picture which is formed on the retina. Outside the sensitive surface or retina there is a coating of black pigment, known as the choroid coat, which serves as a background to stop rays of light which might otherwise pass through the retina.

There are several large muscles round the outside of the eyeball. By means of these the eye may be moved to either side, or upwards or downwards, so as to get a clear view of any object.

Fig. 2 is not an anatomical, but a rough mechanical and optical model of the eye. It is made of an opal lamp globe, with large openings at the top and bottom. On one side is a common bull's-eye; this represents the crystalline lens. The other opening is covered with a piece of partially transparent tracing-paper. This receives the image formed by the bull's-eye, or crystalline lens. It will be seen that the letter A appears reversed; in simple language, it is upside down. So are the images of the objects we see on our retina; they are all upside down.

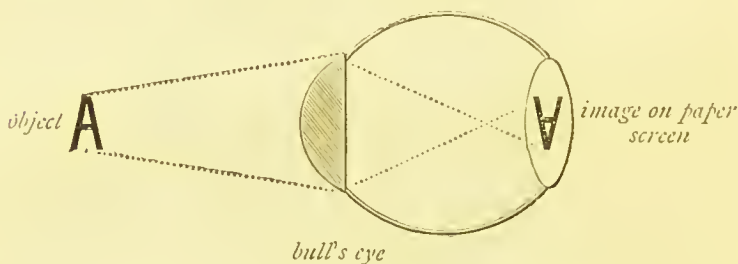


Fig. 2.

One of my scientific friends, the brother of one of our most distinguished musical composers, has taught himself to read print when held upside down. Occasionally he will read a book in this manner when he is travelling in an omnibus or a railway carriage. It is not long before some passenger draws his attention to the fact that he is holding the book the wrong way. Their astonishment is great when he quietly informs them that he prefers reading with the book held in that direction. I am afraid that occasionally they have doubts of my friend's sanity. If I have explained the action of the eye with sufficient clearness, you will at once understand that the letters of the

book held upside down really appear upon my friend's retina in an erect position.

Sometimes the question is put to me, "Will you believe your own eyes?" To this I reply, "As an optician, certainly not."

Numerous ways in which the eyes can be deceived are no doubt familiar to you. The best known of all is, perhaps, that known as Pepper's Ghost. In this optical illusion a number of persons appear to be upon a stage or platform in front of the audience; in reality they are before the stage, but out of view of the audience.

How easily our eyes may be deceived may be proved by a very simple experiment which you may make. Take a large card—the size is of no consequence. Make a large black circular spot on the card, on the right-hand side, one inch in diameter; then, at a distance of three inches from it, on the left-hand side, make a black dot the size of a pin's head. If you hold this card at exactly one foot from your right eye, and look intently at the small dot, the large black circle will not be visible. This arises from the fact that a portion of the retina is not sensitive to light. The insensitive portion is of sufficient extent to prevent a man's face from being seen at six or seven feet distance.

When looking for very minute stars, or other faint objects difficult to see, practical astronomers look for them sideways, out of the corners of their eyes. The centre of the retina is not so sensitive as the outer portions, which are much less used.

There is good reason for believing that the eye takes a photograph of every object looked at intently.

Rabbits have been held before a window for a few seconds and then killed. A picture of the window has been found on their retina.

The impression on the retina is generally said to last about the sixteenth part of a second, but this depends upon the brilliancy of the object and the length of time we look at it.

A FEW WORDS ABOUT LIGHT.

Now I must say a few words about light.

Light is the cause of all colour. Colour is only a sensation in the brain, caused by a particular kind of light being reflected from an object into the eyes. We say trees are green, but they would not be green unless they were lighted by a light which contained green rays. This can be proved by a simple, yet perfectly convincing, experiment.

Place several pieces of paper of various bright colours on a large piece of white paper, taking care to avoid the use of yellow. Now illuminate these with a spirit-lamp which has had salt sprinkled on the wick; the whole of the brightly coloured papers will appear a colourless grey; the reason being that the spirit-lamp giving out only a pure yellow light it is not capable of rendering the other colours visible.

COLOUR-BLINDNESS.

About one person in every twenty-five is to some extent colour-blind—that is, cannot distinguish accurately between colours. In extreme cases such persons cannot distinguish between red and green. This defect often exists without being suspected. The worst case I have ever known was that of a workman who had been for years in my employ. One day, I gave him a number of photographed stereoscopic slides to sort into two lots—one coloured, and the other plain. Soon after he had sorted them I examined them. They were divided into two lots, composed almost equally of coloured and plain slides mixed together. This induced me to test his eyes for colour-blindness, and I found, to my surprise, that he could not tell the difference between a piece of black cloth and a piece of scarlet.

This defect may be of the greatest importance.

Both on railways and on ships, lamps with coloured glasses are used for signalling at night, and flags in the

day time. Any sailor, guard, or engine-driver suffering from colour-blindness might be the cause of a fatal accident by mistaking the colour of the signal shown.

All such persons should have their sight tested.

I have contrived a spectroscope (Fig. 3) in which there is a complete riband or rainbow of colour, with an arrangement by means of which I can shut out all but a small portion of this coloured rainbow, and allow only a small strip of any particular colour to appear. The person whose sight is being tested is then asked to name the colour that is visible.

An easy way of testing the sense of colour is to give a person two or three skeins of Berlin wool of different colours. Then give him a bundle of wool of mixed colours, and ask him to match the colours of them.



Fig. 3.

This test is not to be compared to that with the spectroscope for accuracy.

But under certain circumstances, even persons whose colour-sense is most acute and accurate may be deceived as to colour.

COMPLEMENTARY COLOURS.

When a coloured object is looked at for some time, if the eye be directed to another object which is grey or colourless, this object will appear to be strongly coloured, with just the opposite colour to that of the first object the eye had been regarding.

By the expression the opposite colour, I mean the complementary colour—that is, the colour which added to the first colour would produce white.

Blue causes the grey portion of the object to appear yellow, while yellow causes the grey portion to look blue. Red causes the grey to appear green, while green makes the grey look red.

It must not, however, be supposed that if green paint be mixed with red, or orange paint with blue, that white will be the result.

Owing to the impurity in an optical sense of all our colours, we obtain only dark greys by such mixtures. But, if you reflect the complementary colours from the *spectrum*, in which the colour is optically pure, one on the other, you can make colours that will be very different from those you will obtain by the mixture of pigments; and by using carefully selected pieces of coloured glass in two lanterns, colours will be produced differing widely from those obtained by the mixture of pigments.

The colours of stained glass are much purer and brighter than those of any of our pigments.

There are three ways by which colours can be mixed: 1st, by grinding up the colours together; 2nd, by laying coats of colour over each other; 3rd, by making narrow lines or dots of the colours close to each other. The two last methods are but little known or used, yet they are the methods which give the most beautiful as well as the most scientific results.

On a *revolving* wheel place a disc covered with black and yellow paint mixed together. The disc appears green. On another disc let a portion of the surface be coloured yellow and a portion black. On rotating this disc the colour will be not dark green, but dark yellow. Mix blue and red, and then blue and yellow, first by mixing the paints, and then by colouring a portion of each disc, and note the different result obtained by the two methods.

The diagrams invented by Mr. Gorham, the inventor of the colour-top, will show the appearances I have just described. In those diagrams the grey portion of a blue disc

appears yellow, the grey portion of a red disc appears green, and the grey portion of a green disc appears a reddish chocolate.

It is from want of knowledge of this fact that many artists over-colour their pictures. They make their shadows too blue in what they would call a warm picture—that is, a picture of a red or orange or yellow tone of colour; and the shadows in a cold or bluish picture they make too red. This in another direction proves the necessity of learning to see. Such artists require to be shown that perfectly colourless shadows in a bluish picture will look red, and equally colourless shadows in a reddish picture will appear blue.

Although we cannot with our unassisted eyes tell how pure or impure colours or paints are, we can detect their impurities by means of a spectroscope.

There are many coloured liquids and glasses which look to us almost exactly alike. Now let us see how they look when we analyze or cross-question them by sending the colour through a spectroscope. Take, for instance, blood, cochineal, permanganate of potash, and chlorophyl. By using a miniature spectroscope, blood may be distinguished from other liquids similar in colour, and an idea may be formed whether the blood is fresh. This has been of use in examining the clothes of a suspected murderer, and has led to detection. A quantity of dried blood that would lie on a pin's head could be analyzed by this process.

One instance in which this method was applied seemed to me of great interest.

Some years since, a murder was committed in Cannon Street, in the City. The housekeeper in charge of some offices was killed in the passage of the house, about eight o'clock in the evening. Shortly afterwards, a man, a distant relative of the murdered woman, was arrested on suspicion. On inspecting his clothes a number of small, dark red stains were found upon them. These were scraped off the cloth

by an eminent chemist. This chemist brought half the amount of the dried substance to me. Half of this minute quantity I sent to a distinguished scientific friend, and half I experimented on with the spectroscope.

The amount being so small we could not make a sufficient number of experiments with it to enable us to say positively what substance it was, but both my friend and myself came to the conclusion that it was certainly *not blood*. Had blood been present there would have been visible to an educated eye some very faint lines, known as blood-bands, in the spectrum.

When the trial came on, the man proved an *alibi*, and explained that the dark spots on his clothes were red shellac varnish, which he had got on him at a hat-maker's who used it for stiffening the shapes of his hats.

HOW TO PRESERVE OUR EYESIGHT.

Now for some important hints for preserving your eyesight. Never look at an intensely bright light for any length of time, or a permanent image may be formed on the retina. Avoid, most carefully, exposing the eyes to a very bright light after they have been in darkness, as such changes are injurious, and have been known to produce blindness.

Many persons are in the habit of sitting without a light long after daylight and even twilight has faded, saying they enjoy sitting in the dark, and then having a powerful lamp brought into the room, or a number of gas-burners lighted.

This luxury, if it be one, should not be indulged in. The effect of the sudden bright light is intensely painful—a kindly warning of Nature which we should do well to take heed of.

When using a microscope, always incline it as much as possible towards the horizontal direction. Most persons use the microscope almost upright. Looking down into the

microscope in this position gorges the eye with blood by stopping the circulation in the neck.

Since the publication of my first edition of this book, Mr. G. Davies, the author of an excellent work on "Practical Microscopy," has called on me, and thanked me for condemning the use of microscopes for students which are made so that they can only be used in a vertical position.

He tells me that he has known many cases where injury to the sight has been caused by using them.

A Newtonian reflecting telescope is very superior to an achromatic telescope for those who have any fear of straining their eyes, as the stars and other heavenly bodies can be seen best with this kind of telescope when they are directly overhead.

If a person wishes to look at them when they are thus situated, he must lie down on his back if he uses an achromatic telescope. With a reflecting telescope the celestial objects may be viewed when they are overhead by the observer looking horizontally into the telescope.

When adjusting a very bright lamp-flame, if you wish to do it slowly, look at the flame through a slit formed by almost closing two of the fingers. This will protect the eyes greatly.

HOW TO READ BY LAMPLIGHT.

The best lamp for reading or working is a paraffin or oil lamp, moving up and down on a rod, with an opal glass shade, *open underneath*, white on the inside, and dark-green on the outside. The lamp should be used so low down that the light is reflected strongly on to the object, and so that the flame cannot be seen by the reader. Such a lamp is shown in Fig. 4. If you do not use such a lamp as I have described, then always turn your back to the source of light when you are reading, as in Fig. 5, so that the light may fall on to the book, instead of coming into your eyes.

While I was correcting for the press the proof of the above remarks on reading by lamplight, the following excellent paragraph on the subject, by Mr. Mattieu Williams, appeared in the *Gentleman's Magazine*. As the writer is both a scientific and a literary man, his opinion, founded on experience, appears to me of exceptional value.

"I am now wearing spectacles, and otherwise suffering, as are thousands of others, simply because up to about

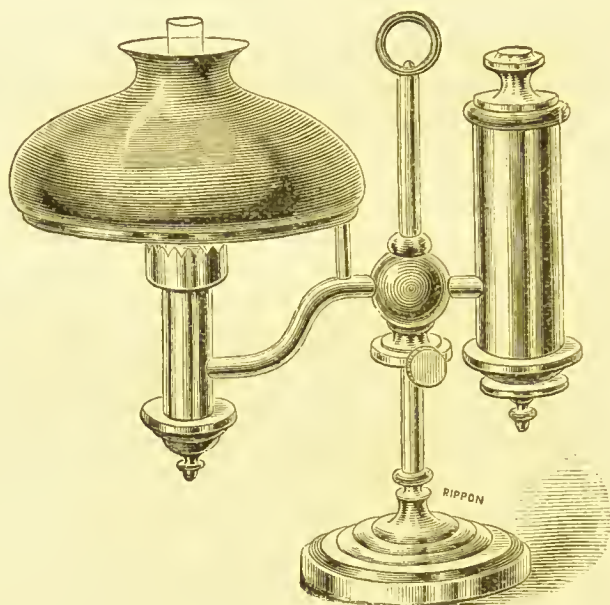


Fig. 4.

forty-five years of age I usually worked at reading and writing with my face to the light, which is the worst possible position. With my back to the light, I can now read or write for two or three consecutive hours without visual inconvenience ; with a front light, half an hour produces pain and inflammation. The reason is simple enough. The light should fall on the book or the paper, and the eye should be in shadow—the shadow of the head. If anybody

doubts this, let him try the experiment of reading small print first with his back to a window that rises well above the height of his head, and then with his face to the same window. Then, in order to explain the difference he will experience, let him, in an otherwise dark room, stand before a looking-glass, hold a candle behind his head, and observe in the glass the size of the black opening to the retina of his eyes. Now bring the candle round, and the contraction



Fig. 5.—Correct position for reading.

of the iris will at once be strikingly shown; the central black window of the eye will be reduced to half its former size. Then let him try the one-sided light—the left-hand light—that is so dogmatically recommended. He will find that the left iris is far less expanded than the right; the right pupil is largest, *i.e.* the eyes are forced to act irregularly, or with an unequal strain upon that exquisitely constructed system of muscular fibres consti-

tuting the *sphincter pupillæ*. As the protection of the retina depends upon the ready response of these to the light, their healthy action and preservation for old age are of the greatest importance. There is a collateral advantage of the back light in the case of children. If the windows are fairly high, the shadow of the head only falls on the book when the pupils lean forward, and to escape from this they avoid the pernicious habit of thus leaning and pressing



Fig. 6.—Incorrect position for reading.

the breast-bone against the edge of the desk. The best light of all is that which comes from above in such a manner that the eyes are protected from glare by the shadow of the superciliary ridge, or overhang of the forehead and eyebrows, while there are no shadows whatever on the desks or the books. But this is only attainable where there are no rooms above. Billiard-players perfectly understand the advantages of such top-lighting, and arrange accordingly."

Always lean well back when reading, and hold the book up, as shown in the engraving (Fig. 5). Do not lean forward and face the light, as in Fig. 6.

Never read by firelight, in the position shown in Fig. 7. Myopia, or short-sight, is often produced, particularly in young people, by reading in an imperfect light.

Never read when lying down in bed; or if, owing to

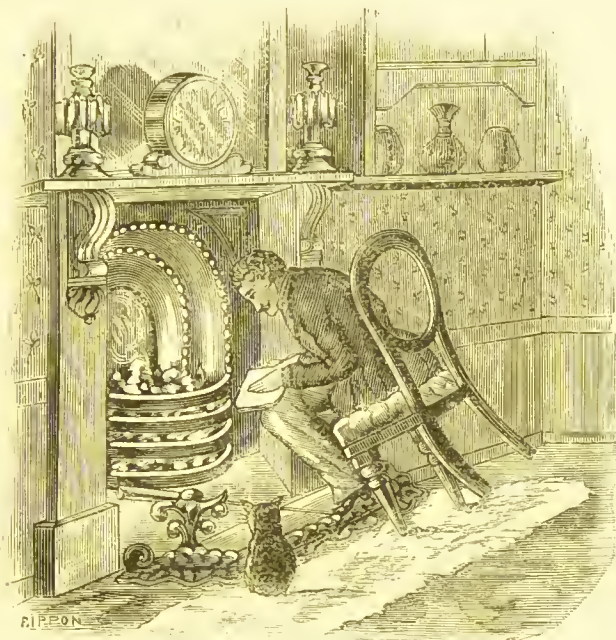


Fig. 7.—Reading by firelight.

illness, you feel you must do so, then do not hold the book up over your face, but place it on the pillow, and read with your face downward and the back of your head to the light.

If you have weak eyes, never sleep with the bed in such a position that your eyes face a window. Turn the side of the bed, instead of the foot, towards the window, and lie on your side with your face turned away from the light.

Never read books printed in small type if you can get large-type editions. There is no doubt that reading in railway trains when in motion is very injurious to the eyesight, on account of the vibration causing the letters to move about before the eyes. I fear it is of no use for me to say, Do not read while you are travelling ; but if you *will* read, let it be books or newspapers printed clearly in large type, and if you read at night-time in the train, carry a reading-lamp, and suspend it behind you, above your shoulder on your right-hand side, and lean back in the carriage, so as to bring your book near to the light. The lamps in railway carriages do not give sufficient light to read by without injuring the sight.

Reading in a railway carriage in motion is much easier and less injurious if a large card or an envelope be held just under each line you are reading, moving it down as each line is read.

Ladies should never do any needlework with dark materials by artificial light.

When looking at pictures in a gallery, do not stand under them and raise the eyes only. Stand at some distance from them and raise the whole head, or, rather, throw it back slightly. This will, to a great extent, prevent the fatigue and headache generally experienced after looking at pictures hung above the level of the eyes.

GENERAL CARE OF THE EYES.

The use of tinted writing-papers is very beneficial to the eyes, but the colours chosen should be grey, neutral tint, or bluish-green ; reddish-brown, pink, yellow, or strongly yellowish-green should be avoided.

Those who suffer in any way from impaired vision, and have much writing to do, should use the new type-writers, which print one letter for each key that is touched. The letters engraved on the keys are about a quarter of an inch

in height, and there is no strain on the eyes beyond looking at these. The writer may lean back in a chair and change from one position to another without ceasing to work, and there is none of the cramping effect upon one set of muscles, so often experienced in writing.

Looking for any length of time through wire-gauze window-blinds is injurious to the sight. An inspector of the detective police came to me respecting his eyes; he had nearly blinded himself by looking through such blinds for several weeks together. The use of these ugly dusty screens is, however, happily being discontinued in favour of light cane blinds, which have many advantages. Ladies' veils, when thick, frequently injure their sight.

I would urge the desirability of keeping the eyes cool. It is a good plan to sluice the eyes closed every morning with cold water. Constantly practising this tends to strengthen and preserve the sight; but if the eyes are actually inflamed, water of the same temperature as the air in very cold weather may increase the inflammation, and tepid water will, under such circumstances, be most beneficial.

Slight inflammation in the eyes may be relieved by bathing them with cold or nearly cold tea, or a little Goulard water, which may be obtained of any chemist.

THE CARE OF INFANTS' AND CHILDREN'S EYES.

To the precautions we should take with regard to our own eyes, I must add a few words of warning respecting those of our children.

Never allow infants to be exposed to the full glare of the sun. Men shade their eyes with the brims of their hats, and ladies carry parasols. But infants wear nothing which projects over the forehead; they are constantly to be seen in perambulators with their unprotected faces turned full towards the sun, and I have frequently seen them left by careless people in such a position, with their poor little

eyes closed, moving uneasily about, and unable to find any relief from their suffering.

It is difficult to estimate the amount of mischief which may be done to their eyes or health by such thoughtless cruelty.

In schools, children generally suffer from deficiency of light, after having while infants, out of doors, been exposed to it far too much.

Studying in schoolrooms where there is a deficiency of light, children stoop over their books, or in any way bring them closer to their eyes in order to assist their imperfect view of the letters; owing to this the vision becomes strained, and is often seriously impaired; and if the practice be long continued, a permanent change takes place in the vision, so that it becomes myopic, or short-sighted. This I shall treat of more fully in a separate chapter. Under the head of "test types," I have described how to test children's eyes, to ascertain if they require spectacles.

THE USE OF COLOURED GLASSES.

Coloured glasses might more often be resorted to with advantage. For writing or reading, light blue are the best, and some prefer this colour for walking; but generally it will be found that neutral tint or London smoke are the pleasantest, and they are equally beneficial for outdoor use. Whether for indoor or outdoor use, they are generally worn much too dark.

Most persons will require only plane and parallel glasses; and here I must caution my readers that such lenses should always be made of optical glass, *coloured all through and worked and polished on both surfaces*. The greater part of the coloured glass spectacles and folders sold are made of white glass, which is coloured only on one side, and not worked at all, but simply fire-polished. Such glasses have many imperfections, as seeds, specks, blebs, or veins, besides

unequally polished places, scratches, and other surface-markings.

Owing to the dark colour of the glass, these escape notice when looking at them ; but they cannot fail to be prejudicial to the eyesight of those who wear them, who have to look *through* them. Whatever spectacles are worn, whether for short or long sight, for walking or reading, coloured glass or clear, they should be worn well away from the eyes, for two reasons—the eyes should have free play of air over them and be kept cool, and the lenses and frames should be kept well off the eye-lashes. If in the involuntary winking of the eye, which is always going on, and should never be restrained, the lashes touch any part of the spectacles, the eyes will soon become irritated and often inflamed if they are naturally weak.

Visitors to our seaside watering-places should wear coloured glass spectacles or folders to moderate the intense glare of the reflected sunlight from the sea and sand, from the roads and pavements, and from the white houses, as it frequently causes headaches, which are wrongly ascribed to biliousness, and eventually impairs the vision.

Figs. 8 and 9 show the best forms of coloured glass eye-protectors made. The last-named have gauze sides to more effectually exclude dust, wind, or insects.

Dr. Alfred Haviland has made the practical suggestion that a small quantity of soot might with advantage be mixed with the cement which is so freely used to cover the houses, whenever the fronts have a southern aspect.

I find blue glasses the most beneficial, violet comes next, and smoke or neutral tint last ; but either grey, smoke, or neutral tint are almost as useful, and one of these neutral shades I always recommend, because they are pleasanter than blue to wear, as they do not appreciably alter the colour of any object seen through them, *and they are much less conspicuous than blue glasses*. Many persons who read in rooms into which the sun falls, would do well to

have spectacles made with light neutral tint glass lenses instead of the ordinary white glass, as this would save their eyesight. But as a general rule, when reading by artificial light, most persons require all the light they can have to enable them to see, and for such persons lenses of coloured glass of any kind would be unsuitable.

Those who will attend to the suggestions here given for the preservation of their sight may postpone the time at which they require to take to spectacles for several years, and may by the use of proper lenses, when they are at last

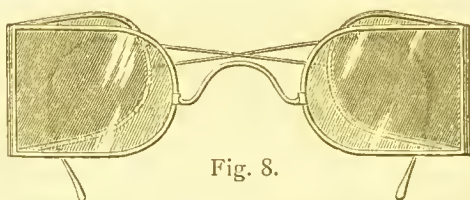


Fig. 8.

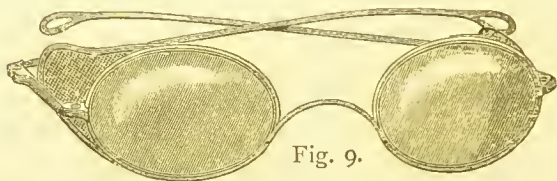


Fig. 9.

required, retain their keenness of vision unimpaired to a very advanced age.

WHEN SPECTACLES ARE REQUIRED.

The proper use of spectacles is a subject on which the public have less general knowledge than any with which I am acquainted. As a natural result, there is probably more quackery practised in this direction than in any other.

It is, above all, when we have passed middle life, and are compelled to apply to the optician for artificial aid to vision, that we require to know "how to use our eyes."

We are all interested in spectacles, for those of us who do not require them ourselves will at some time need them, and have relatives or friends who do ; and we may save them from having their pockets picked and their eyesight injured.

A common proceeding on the part of spectacle quacks is to inform those who consult them, that a complaint is coming on in their eyes, and only the peculiar spectacles which they alone can supply will arrest it and prevent them from losing their eyesight.

An honest optician would, if any disease of the eye were either present or imminent, recommend that a competent surgeon-oculist should be consulted without delay—but of course the opinion of such a competent practitioner is just what a quack desires to avoid.

Since the first edition of this book was printed two new methods of quacking spectacles have been largely adopted.

The first is for chemists to send out a number of pamphlets puffing the merits of some particular spectacles for which they have been made agents, and professing to be able to test the eyes and suit any vision with them. These pamphlets are generally printed by the wholesale dealers from whom they obtain the spectacles, and only the name on the cover or title-page is altered to suit the case of the particular chemist who has to distribute them.

A worse method of quackery even than this is selling spectacles and folders, which, of course, have magical properties according to their vendors, at exhibitions, fancy fairs, and bazaars. The dealers in these spectacles actually take hold of people by the shoulder and put the spectacles or folders on to their faces before asking leave to do so. If these are to be the opticians of the future, then the necessary qualities for a successful optician will be a face of brass, lungs of leather, the tongue of a Cheap Jack, and the conscience of a German Jew.

There is no particular age at which spectacles are certain

to be required. Men can seldom see well without them after they are 45, or women after 40. Very often, indeed, women require them at 30, and do themselves irremediable injury by not using them. In many cases they fear looking old, but more often they think that the longer they can put off using them the better. In this way they frequently postpone using spectacles for two or even three years. When they are compelled to take to them *they have impaired their vision*, and require stronger glasses than they would have done, and often then they cannot recover the full clearness of vision they formerly possessed, and which they might have preserved to extreme old age had they but known "how to use their eyes." Once you cannot see clearly by lamplight or gaslight without holding the object farther from you than usual, you require spectacles, and by working or reading without them you may bring on distressing headaches, or do your eyes an injury which no optician can afterwards remedy.

The proper reading distance is from 12 to 14 inches from the eye.

A correspondent of mine has aptly named the stage at which spectacles are first required as becoming "Bradshaw blind."

As soon as it is found that the figure 3 cannot be readily distinguished from 5 in the popular railway guide by artificial light, spectacles should at once be obtained.

A worse mistake than postponing getting a pair of spectacles suited to your own sight, is to use your father's or mother's spectacles, if you have such by you. By doing this, you may in a few months age your eyes as much as with the use of proper spectacles they would have aged in as many years. These remarks apply quite as much to gentlemen as to ladies. *Spectacles when required are a luxury, not a nuisance.*

Another mistake, commonly made by short-sighted persons, is wearing the same spectacles for reading and

walking. This can scarcely ever be done without straining the eyes.

Nearly all short-sighted persons require two pairs of spectacles, and these often differ widely in focus. Occasionally those suited for reading require to be only half the focus of those suitable for walking. At times the power of accommodation is so deficient that three pairs of spectacles are required to see objects at different distances, say, from reading-distance to the horizon.

Different spectacles should, as a rule, always be worn for playing music from those used for reading, because the music is placed on the instrument at a greater distance from the player than the book is held while reading.

Although, of course, the power of adapting the vision or seeing clearly is, as a rule, first lost for close objects, yet occasionally it is first lost for distant objects. I have known persons who fancied that their eyesight was seriously and permanently impaired from being unaware of this fact. A pair of short-sighted spectacles gave them clear vision directly.

Some long-sighted or old-sighted persons whose sight is acute at one particular distance are very deficient in focussing power. In some cases focussing power is almost entirely absent, and I have known them to require spectacles of four degrees of power, for reading, writing, playing billiards, and walking. Happily such cases are rare, but there are few long-sighted persons whose eyesight would not be improved by using at least two pairs of spectacles which differ in power, the strongest for reading and a rather lower power for writing or playing music. Many persons find a great advantage in using a rather stronger pair of spectacles for reading at night-time than they use during the day.

Spectacles used for reading only should not be worn high up on the nose, close to the eyes, as is generally the case, as in this position they prevent the free play of air to the eyes, and frequently touch the eyelashes and so irritate the

eyes. When worn as low down on the nose as can conveniently be done, they assist the vision more, and allow the wearer to look over the top edges at all distant objects, as well as avoiding the above-named evils.

No attention is generally paid to a pair of spectacles fitting the face, yet, to obtain the full benefit from them, they

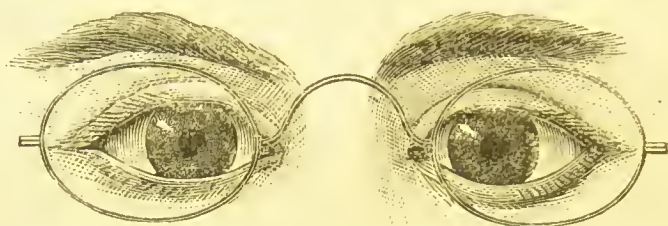


Fig. 10.—Spectacles too wide.

ought to fit the wearer's face so well that the centres of the glasses come exactly opposite to the pupils of the eyes. It is curious that people who would never think of wearing a dress or coat unless it fitted them, will wear any pair of spectacles, though the result is more disfiguring and is injurious to the sight. It is necessary for an optician to



Fig. 11.



Fig. 12.

keep at least a dozen different patterns of spectacles to select from, and even then spectacles must often be made to fit the face, and this should really add very little to their cost. Spectacles to suit different personal peculiarities require to vary in many ways.

They must have high, medium, low, and nearly straight bridges (Figs. 11 to 14); long, medium, and short sides,

and must differ greatly in the width of the eyes. If the spectacles are either too wide or too narrow, as shown in the diagrams, they have a tendency to produce double-



vision, that is, to make every object appear to be doubled. In Fig. 10 the spectacles are too wide; in Fig. 15 they are too narrow, and in Fig. 16 they are the correct width.



Fig. 15.—Spectacles too narrow.



Fig. 16.—Spectacles right width.

Figs. 17 to 22, which are drawn exactly half the size of the real spectacles, show six of the widths most required.

While as a general rule all spectacles should fit so that the centres of the lenses should correspond with the centres of the eyes, yet *in exceptional cases* slight deviations may be made with great benefit by an optician

who understands the eyes sufficiently well to use this plan with advantage. The method is known to those skilful in its use as decentering the lenses. This must not for a moment be mistaken for the mischievous misfits which are

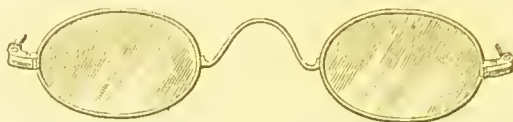


Fig. 17.

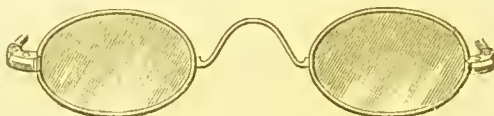


Fig. 18.



Fig. 19.



Fig. 20.

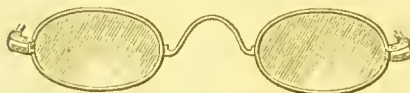


Fig. 21.

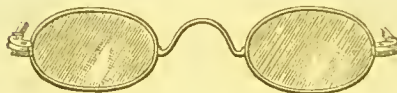


Fig. 22.

Spectacles differing in width from $2\frac{1}{8}$ to $2\frac{5}{8}$.

of constant occurrence. Two cautions may be given which should receive careful attention: short-sighted persons should not wear spectacles which are narrower than their eyes, and old-sighted persons should not wear spectacles which are wider.

The bridge of spectacles should fit the nose well, and never be much wider than the nose, as is frequently the case, for, if so, the spectacles are sure to shift on one side, putting both lenses much out of the centre. When the eyes have become accustomed to such a false arrangement, although they are strained and suffering from it, they yet cannot wear at once without great inconvenience, and sometimes even positive pain, a pair of spectacles accurately centred. See a case in point at foot of page 72.

One cause of wearing spectacles belonging to other people doing so much mischief is that the spectacles so worn are generally of a totally different width to what they ought to wear.

A young lady who was very short-sighted came to me with inflamed eyes, and complaining of great pain in them and constant headache. I learned that a friend had made her a present of a pair of gold spectacles, and she had got lenses fitted to the frames very similar in power to those she had been using, and she admitted that since that time her eyes had been getting rapidly worse.

I soon saw the reason—the spectacle frames were a full eighth of an inch too wide for her, though in all other respects they suited her fairly well. I put a new and smaller bridge to the spectacles. This made them narrower by the requisite amount, and improved their appearance. In a few weeks all the trouble in the eyes disappeared.

Old spectacles are frequently bought in a small country town, and worn in spite of many symptoms that they are wrong. From first to last they cause the wearer considerable distress, and a certain amount of permanent impairment of vision.

Pantoscopic frames (Fig. 23) and Artists' frames (Fig. 24) are both made to enable the wearer to look over the upper edges of the lenses at any distant object for long-sight; and Pulpit frames (Fig. 25), are used to look through the lenses at distant objects only. There are also frames with double sides



Fig. 23.—Pantoscopic Spectacles.



Fig. 24.—Artists' Spectacles.



Fig. 25.—Pulpit Spectacles.

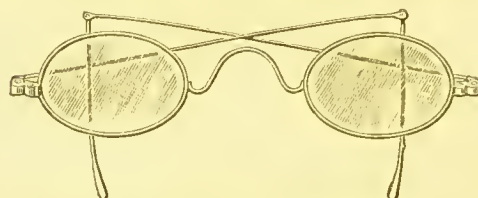


Fig. 26.—Double-side Spectacles.

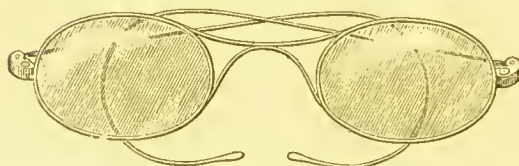


Fig. 27.—Hook-side Spectacles.

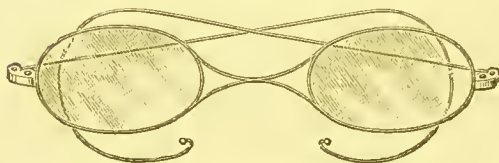


Fig. 28.—X Bridge Spectacles.

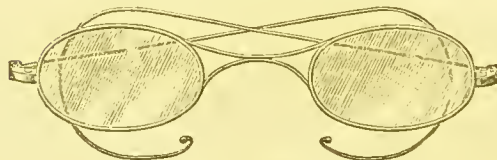


Fig. 29.—K Bridge Spectacles.

(Fig. 26) and hook sides (Fig. 27) ; and yet again, frames with X bridges (Fig. 28) and frames with K bridges (Fig. 29).

Two things I must earnestly warn you never to do. Never use a single eye-glass (Fig. 30). Never keep a pair of spectacles on your face *that are suited for reading* when you are walking about, or, in fact, one moment after you have done looking at some near object through them, unless you place them so low down on the nose that you can see over the top edges. For walking they should always be taken off.

While I was reading this for the press I received a letter



Fig. 30.

from a lady who had fallen downstairs in her reading spectacles and broken them. Most likely the spectacles were the *cause* of the accident.

Very recently I saw a gentleman in the Charing Cross Railway Station wearing a pair of reading spectacles. With these on he was trying to make out the time by the station clock. This clock must be about thirty or forty feet high, and he was straining his eyes to see it through a pair of

spectacles which would not show any object clearly at a greater distance than fifteen inches. By wearing them he was seriously injuring his eyes, and risking an accident in getting in and out of the railway carriage. Fig. 31 illustrates the effect of a person looking at a church clock under similar conditions.

I have traced many accidents to persons who were



Fig. 31.

long-sighted keeping on their spectacles occasionally when going downstairs.

The generally received idea is that the spectacles worn should always be the lowest power the wearer can manage to see with, because the eye should have a slight adjustment left to make for itself. This is entirely wrong. The spectacles worn should fully meet the want of adjustment or focussing power.

There should be not only no conscious strain, but no unconscious strain on the part of the wearer.

The only good method of telling whether spectacles are required, and if so what power will be suitable, is by means of the optometer, which measures the focussing power of the eye. Having ascertained this, a lens of the strength indicated should be placed in a second optometer, and the distance at which the eye will focus with this lens should be carefully determined ; *but an optometer in unskilful hands is capable of giving most erroneous results.*

Sometimes, though not very often, persons imagine that because they have reached a certain age they *must* require spectacles. I recollect one instance of this kind. A well-known admiral came to me and told me that he had never worn spectacles, but he was quite sure he required them.

I gave him a book of test-types, and asked him to tell me the smallest-sized type he could read, and at what distance from the eye he could read it. Having obtained this information, I gave him a pair of very low-power spectacles, suitable for a long-sighted person, and then, directly afterwards, a pair suited for a short-sighted person. He said he could see equally well with either. This was just what I expected.

"Now," said I, "here is a pair of spectacles that will suit you."

He put them on, and, taking up the book, he said, "Oh yes, I can see better with these than with either of the others."

"I thought you would," was my reply, "because if you take them off you will find that they are a pair of spectacle frames—there are no glasses in them!" Had this gentleman gone to a quack, he would certainly have given him spectacles several years before he required them.

I only wish to say one sentence more on this subject :

Do not believe that any loudly puffed spectacles can be of special service to you. There is skill, of course, required

in making good lenses of fine optical glass or Brazilian pebbles ; but there is still more skill required in suiting the spectacles to each particular person's requirements.

How can this skill, only to be acquired by knowledge combined with great experience, be possessed by every watchmaker, chemist, jeweller, or ironmonger who buys a dozen pairs of spectacles and writes up that he is a PRACTICAL OPTICIAN?

To be able to suit correctly the majority of persons who apply to him for spectacles, an optician must keep a stock worth several hundred pounds ; and even then, to suit all peculiar cases, he should be able to grind lenses and make special frames as required.

Remember that a pair of spectacles which would exactly suit one person would, in a short time, almost blind another.

I doubt if more than one person out of each dozen receives the full benefit from spectacles that he should do, while there are probably three or four out of each dozen who permanently injure their eyesight by using spectacles unsuited to them.

A great number of persons have their eyesight injured by beginning with spectacles unsuited to their requirements. In the majority of cases opticians take it for granted that both eyes are alike, although cases of unequal vision of the two eyes are very frequent. Where lenses suitable for equal vision are given in such cases, one eye does nearly all the work, and the other next to none. Unfortunately the mischief does not end here, but, after a time, the eye which has the acutest vision becomes teased, and gives the owner trouble which compels him to resort to an oculist or surgeon. All this trouble can be saved by using lenses of unequal focus, suited to the requirements of each eye separately.

Those who live in foreign parts, or out-of-the-way places, at times wish to send word to an optician in some large

town, of the power of the spectacles they are wearing, to get him to send them others of a similar kind or still stronger.

There is no simple method known of obtaining the power of spectacles in the case of concave lenses, which are required for short-sight; but in the case of long-sighted spectacles, where convex or magnifying lenses are used, it may be easily done in the following manner. Take the lens in the right hand and place a card on the table facing the sun, then move the lens backwards and forwards from the card until the smallest and sharpest spot of light (which will be a small image of the sun) is formed on the card. If the distance from the edge of the lens to the spot on the card is now measured with a foot-rule or a measuring-tape, that will be the focus of the lens in English inches.

The nature of astigmatism I shall describe elsewhere; see page 76.

Astigmatism is seldom corrected, or even sought for, by the general run of opticians; even some of our leading oculists at times fail to distinguish its character and accurately to correct it, but it is really a matter of the utmost importance to do so. A book larger than this might be written on astigmatism without exhausting the subject; but I will only give two illustrations, which will be readily followed, of the injurious effect of not correcting astigmatism. The first of these applies to short-sight, the second to long-sight.

I have had many persons apply to me stating that they were short-sighted, but they could get no short-sighted spectacles to suit them properly. Whenever they tried such spectacles they always dazzled them, and strained their eyes so that they had to give up using them. In all such cases I have found that there was very little short-sight indeed, often none worth naming, but there was myopic astigmatism, which should have been corrected with cylindrical lenses. In endeavouring to correct this, the uninformed

optician, or spectacle-seller, had given them lenses many times too strong for them, and so strained the sight.

Upon correcting the astigmatism with cylindrical lenses alone, all the trouble disappeared. I have particularly in my mind one case of a young lady between seventeen and eighteen years of age, who came to me wearing spectacles with deep concave lenses (4 dioptrics) ; these would have been suitable for a person extremely short-sighted. Under these her eyes were breaking down. On giving her a pair of weak *cylindrical* lenses (only $1\frac{1}{2}$ dioptrics) she saw much better with them than she ever did with the deep concave lenses, and her eyes began to get strong and well from that time.

Again, in the case of astigmatism in long-sighted persons. The want of definition caused by astigmatism can be *partially* overcome by using convex lenses—that is, magnifying lenses—of increased power. Such lenses are always given, and answer their purpose for a short time ; then their wearers want lenses of greater power to overcome the defect in their sight. Owing to this peculiarity they increase the power of their spectacles yearly instead of about once in two or three years, and I have had instances where they have changed their spectacles every six months, with the result that persons fifty years of age were wearing spectacles old enough to suit the majority of persons between seventy and eighty.

The resort to cylindrical lenses for correcting the astigmatism stops the mischief directly, and frequently much less power is required in the spectacles than has been used before.

Year after year I have been pained by people living in the country coming to me for spectacles, when their eyesight had been first injured by using improper lenses. After long consideration I have been able to devise small instruments, which I can send through the post, and from the indications these give I can tell with accuracy what lenses are required. I have suited many cases in this

way by correspondence, *when the eyes of the correspondents differed greatly in focus.* I shall have great pleasure in forwarding full particulars to any person, post free. The testimonials at the end of this work show the great satisfaction this system is giving to my numerous clients, whose number is increasing constantly.

BROWNING'S METHOD OF TESTING THE SIGHT.

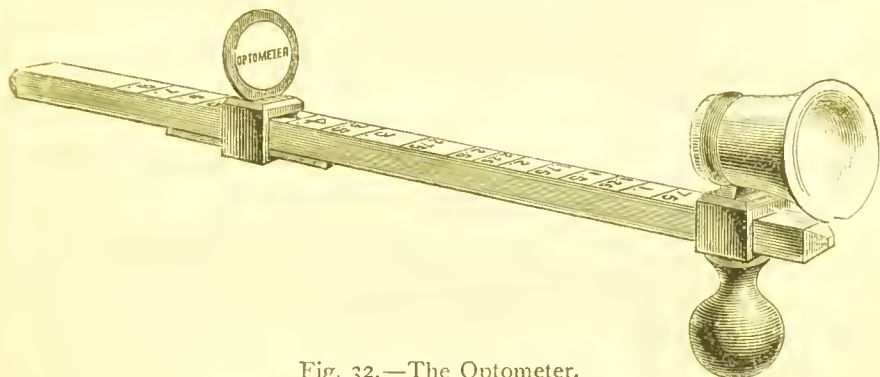


Fig. 32.—The Optometer.

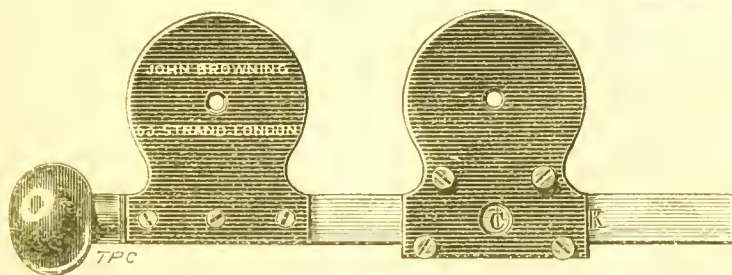


Fig. 33.—The Width-Measurer.

I here give three engravings of the principal instruments I send out, in practising my method of suiting the sight by correspondence. They are called the Optometer, the Width-Measurer, and the Short-Sight Test-Lenses (Figs. 32, 33, and 34).

I cannot, however, give the method I adopt in using these instruments, because it varies with the varying condition of the sight of the applicants.

Lenses of pebble, rock-crystal, or, as it is termed by mineralogists, quartz, keep a clear bright-polished surface

very much better than glass, and most persons prefer them. A correspondent of *Knowledge* inquired recently if these lenses were not cut at varying angles out of the quartz crystals, and whether this would not cause them to perform badly. My experience is that this matter seldom receives the attention from opticians which it should do. First-class opticians should keep pebble lenses cut truly at right angles to the axis of the crystal, though they are necessarily more expensive.

Such lenses, when tested by polarized light, should give concentric coloured rings, as in Fig. 35. Lenses not cut at right angles to the axis of the crystal give coloured bands, as in Fig. 36.

Every piece of crystal used for making spectacle lenses should be carefully tested by means of a polariscope. Many crystals possess peculiarities which would cause a lens made from them to give most imperfect images.

Mr. W. G. Lettsom has kindly lent me some specimens of crystal, of which I give engravings as seen through a polariscope (Figs. 37, 38, and 39).

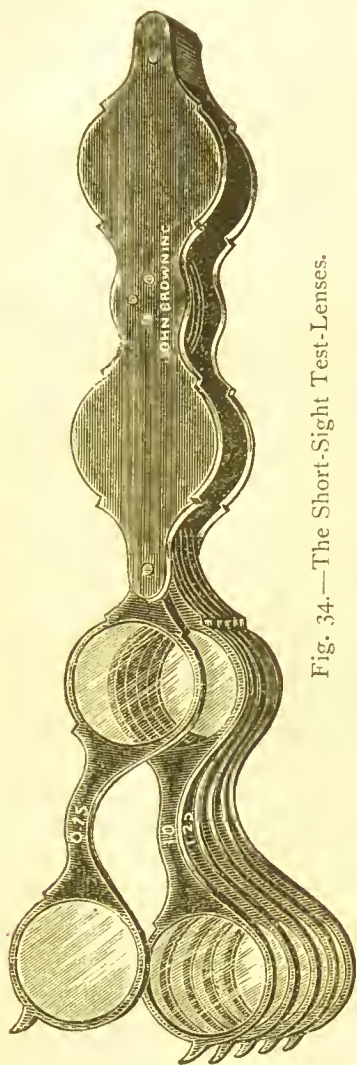


Fig. 34.—The Short-Sight Test-Lenses.

Such specimens would be quite unfit for the production of lenses of any kind.

A great many persons have one eye more sensitive to colour than the other, and this leads me to say that many



Fig. 35.

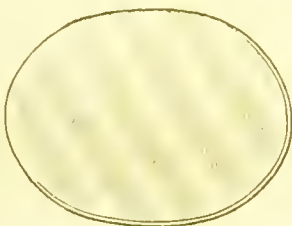


Fig. 36.

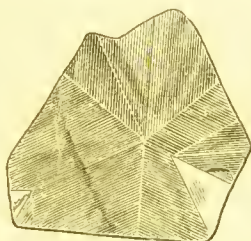


Fig. 37.



Fig. 38.

more persons than would be supposed have two odd eyes. In some, the eyes differ in acuteness of vision or sensitiveness to colour; in others, in focus; and again in others, in their sensitiveness to light. In most cases, when spectacles

are required, the difference between the eyes may be corrected by using lenses of different power. To this subject I shall further on devote a short chapter, as it is a matter of considerable importance, though it is commonly

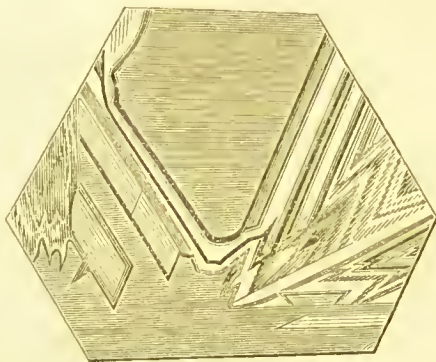


Fig. 39.

passed over by opticians without any attention ; indeed, I fear, where they possess the skill, they will not take the trouble to determine the amount of the inequality, or to make spectacles which will correct it.

SHOT-PROOF SPECTACLES.

In view of the numerous accidents which have occurred in shooting, shot-proof spectacles have just been introduced.

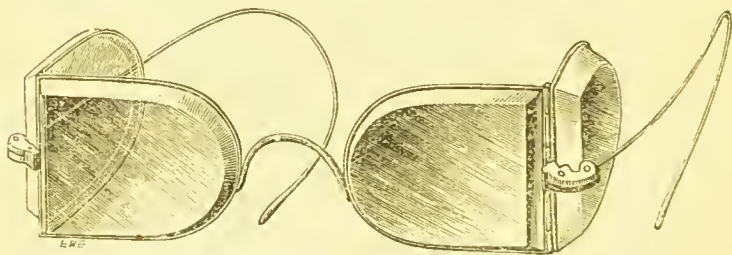


Fig. 40.

They are made of four very stout planes of Brazilian pebble, bevelled to an edge, and fitted into strong nickelized frames

(Fig. 40). They are so formed as to protect the eyes at the sides as well as in front from injury. Though they are strongly made they have no unpleasantly weighty feeling when they are on the face.

OLD-SIGHT.

Old-sight, or, as it is technically called, "presbyopia," is a condition of the eyes in which the power is wanting to focus them on near objects, and thus see things clearly which are within about twelve or fourteen inches from the face. This condition is generally the result of advancing years, and spectacles with convex lenses to counteract long-sightedness are usually required by men at about the age of 47, and by women at about 45 ; that is to say, few persons can dispense with spectacles after these ages, without straining their vision and permanently injuring their sight.

But to this rough general rule there are many exceptions. After a severe illness, which greatly enfeebles the system, spectacles for long sight are often required. I have frequently prescribed spectacles for such cases, and after a few weeks diminished the strength of the lenses, and in a few months my client has been able to dispense with them entirely.

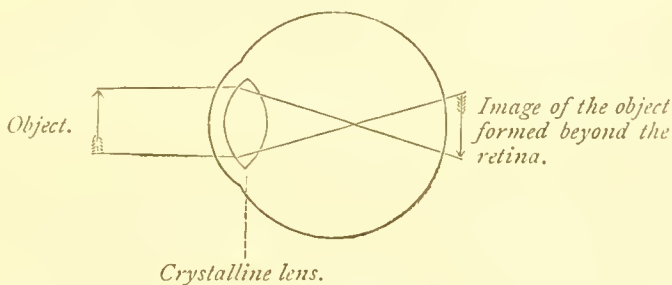


Fig. 41.

The diagram (Fig. 41), shows the condition of the eye in old-sight when the image of the object is not formed on the

retina, but would be formed at a distance behind the retina.

Fig. 42 shows the same eye with a convex lens interposed, by the aid of which the image is formed nearer to the crystalline lens, and therefore within the globe of the eye, so that it falls on the retina.

The condition of the eyes varies constantly with the state of the health, and even with the digestion. When hungry the vision is often imperfect, and most persons cannot see so well just after a full meal.

Ladies before they reach middle age frequently require spectacles to enable them to see to read easily, for a month

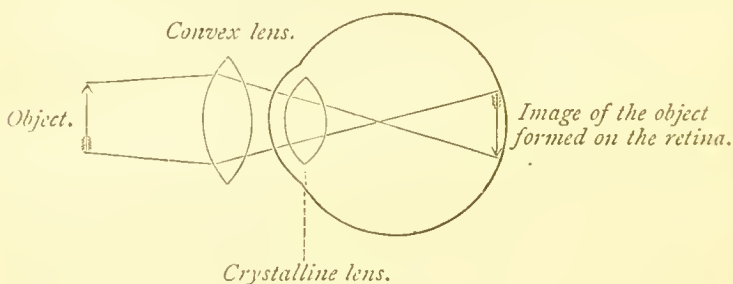


Fig. 42.

or two after child-birth. Occasionally young children are naturally deficient in the power of accommodation, and require spectacles to correct long-sightedness, even when they are only 7 or 8 years old; and I have had several cases of old-sighted spectacles being necessary at between 3 and 5 years of age. Often I have had great difficulty in convincing clients, who come to me for advice about their eyes, that all they require is a pair of old-sighted spectacles when they are not nearly middle-aged, or in many instances not even of age.

Sometimes the condition of vision called long-sightedness is brought on between the ages of 16 and 30, through unfairly trying the eyes by reading small print, or making

minute drawings, or doing needlework for a length of time and for many hours continuously by artificial light.

In youth, those who are blessed with average good sight read easily and naturally with the book held at about twelve inches at the farthest from the eye, but as they advance in years the distance at which they can see clearly increases, and they insensibly hold the book further and further away from them.

When at length the failure to focus at any convenient distance, or pain in their eyes, compels them to wear spectacles, use has become second nature to them, and they wish to read with the book held at about eighteen inches from their eyes, as they have been doing; this cannot be done without injury to their sight.

The reading distance with spectacles suited to correct old-sight should not be more than fourteen inches.

THE BEST DISTANCE FOR READING.

The best distance for reading is generally between twelve and fourteen inches for middle-aged people; with old people it is frequently less than twelve inches, but the distance varies slightly with almost every case. Those who have been short-sighted from youth, and have worn concave glasses for reading, can seldom be made to read safely as far as twelve inches, when they become longer-sighted for near objects.

No absolute rules can be laid down with regard to suiting the sight with spectacles. An optician must have his knowledge of optics always to fall back upon, but he will meet with many failures if he attempts to treat all eyes alike by hard and fast rules. *The eyes are not mere optical instruments, but are most delicate and sensitive physiological contrivances possessing as many peculiarities as their owners.* A physician cannot treat his patients' bodies all alike, nor should an optician treat his clients' eyes so.

My correspondents frequently ask me to give them the

number of the lenses with which I have supplied them. They do this with the idea that they could then get similar spectacles elsewhere. In this they are mistaken. Different opticians use various numbers to indicate lenses of the same degree of strength, and small dealers, not liking to confess that their stock is not sufficiently extensive to enable them to supply lenses of the exact strength required, will supply the nearest power they have. When these lenses are too strong in cases of short-sight, or too weak in cases of long-sight, much mischief is often done which cannot be undone.

The numbers so generally used by opticians are most unsystematic and misleading. I have recently had a pair of lenses for short-sight marked No. 1, which were twenty-four inches minus solar focus, and on the same day another pair marked No. 1, which upon being tested proved to be forty inches minus solar focus. This shows that persons ordering their spectacles by numbers cannot depend on obtaining lenses of any particular well-defined power. The only true system of indicating the power required is that known as the dioptric system. Unfortunately, the number of lenses required to be kept in stock, the value of the sets of lenses which must be kept for testing, and the study which is necessary to understand them compared with the old rule of thumb method, will, I fear, prevent most opticians from adopting it.

Occasionally for correcting old-sight I am asked for periscopic, meniscus, or concavo-convex lenses, by clients who suppose that such lenses are superior to the double-convex or double-concave forms in general use. The reason such lenses are believed to possess some advantage is, I presume, because they appear to coincide with the outward form of the eye. But the purpose of a spectacle lens should be to produce a distinct image of any object in front of it with as little action on the rays of light which it causes to diverge or converge as possible.

This is best effected by the double-convex or double-concave lenses, because they divide the deviation of the rays equally between the two surfaces. This is clearly shown by the two illustrations (Figs. 43, 44). A (Fig. 43), is a periscopic lens, and in this it will be seen that the convergence of the rays which pass through it takes place entirely at the first surface; while in B (Fig. 44), which

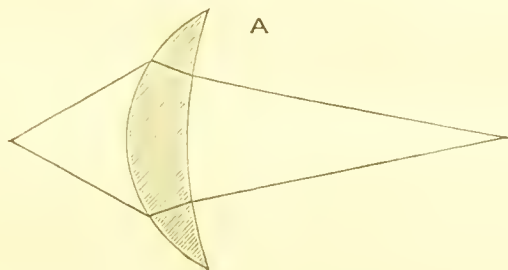


Fig. 43.

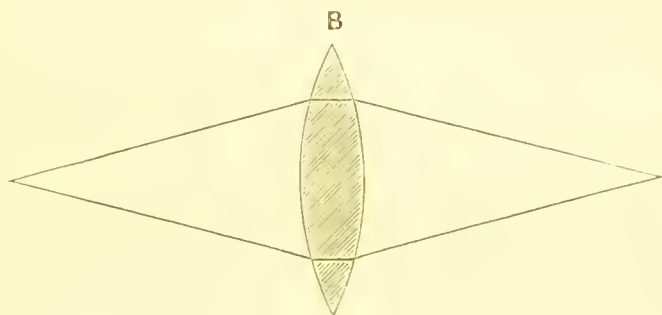


Fig. 44.

represents a section of a double-convex lens, the outer curve of the lens is much less, and the rays suffer convergence equally at both surfaces—that is, as they enter and as they leave the lens.

It is generally supposed that the necessity for spectacles is caused by the eye flattening. In reality the cause or causes are complex, but principally they are twofold. The crystalline lens, which forms the image on the retina, with

age becomes harder, and the ciliary muscles, which alter the focus of the eye by changing the form of this lens, become weaker, so that they are incapable of rendering the lens sufficiently convex to focus on an object nearer than fourteen or fifteen inches from the eyes.

More distinct definition may be obtained, of course, under such circumstances, by holding the book or other object further from the eyes, but this strains the sight by diminishing the apparent size of the object, and reducing its luminosity. As at double the distance an object is only one quarter as luminous, this is a matter of great importance.

A highly valued scientific correspondent has written me a most suggestive letter. As the questions he asks me may occur to many of my readers, I will transcribe them almost entire ; but, for the sake of simplicity and clearness, I will reply to each query before noting down the next.

Question I.—What is the reason why spectacles of shorter focus are required for presbyopic vision (old-sight) by artificial light than by daylight ; can the difference of intensity of light account for this sufficiently ? Some persons use a very powerful light indeed in the evening. Will the difference in the nature of the light have anything to do with it ?

Reply.—It is purely a question of the amount of light. Persons who have used spectacles for years can read without them in sunlight. The stronger spectacles enable the wearer to bring the object to be seen nearer to the eye, and as light increases in the square of the distance, the gain is very great.

Question II.—Suppose a person to possess spectacles with which he reads ordinary print at twelve inches distance, should he or should he not use stronger glasses to read smaller print ?

Reply.—Decidedly yes ; but he should not use spectacles so strong as to require him to bring the object he wishes to see closer than from eight to nine inches from his eyes, for

if he does he will experience a great strain in endeavouring to converge both his eyes on the object. If the work is so fine as to require more optical power, he should wear spectacles with a strong lens, say from two to six inches focus, in *one* eye only, and a disk of thin black metal in the other. So long as he uses ample power to see the object easily, and does not work at it too long at a time or with an insufficient light, he will not injure his eyesight.

Question III.—Some opticians prefer to cut pebbles parallel to the axis of the crystal, the lenses thus cut showing prismatic bars under the polariscope. Should they be cut in this manner?

Reply.—Certainly not; they should be cut at right angles to the axis of the crystals of quartz. Several years ago, the late Mr. Gassiot gave me a commission *carte-blanche* to make him the most powerful and perfect spectroscope I could, both the prisms and the lenses in the telescopes to be entirely of quartz (pebble). I found the lenses would not perform correctly unless they were carefully cut *exactly at right angles to the axis of the crystals*. As mostly used for spectacle-eyes, they are cut at any and every angle, and they show dissimilar appearances under the polariscope. This must be wrong. Whenever a person is so fortunate as to possess a pair of eyes, it is certain that he should have a pair of exactly similar lenses in his spectacles.

Owing to the double refracting properties of the pebble, rays which enter the top and bottom of a lens cut parallel to the axis will be brought to a focus at a different distance from that of the rays which enter it on the right and left hand.

Mr. Brudenell Carter, in his book on "Good and Bad Sight," says—

"The ordinary advantages of pebble lenses may be more than neutralized if they have not been cut from the original block in the right direction. The material has the curious

property of being refrangent in one particular direction—that is, the ray of light passing through it in this direction is split up into two, and two images of the object from which it proceeds are produced. In order to make a perfect pebble lens, its axis must be at right angles to the axis of double refraction ; for otherwise, although the thickness will not be sufficient for two images to be produced, the single image may, nevertheless, be more or less blurred or bordered. The only security against this for the ordinary purchaser is to buy of an optician of repute, who will be more desirous to supply lenses of the best quality than to make the largest possible number out of a given piece of pebble.”

Old-sighted spectacles for reading are scarcely ever worn correctly. They are generally worn too high up on the bridge of the nose. The result is that the wearer constantly looks through them at objects at various distances, and thus strains the vision and increases the old-sightedness.

Those who do this will age their sight rapidly, and require the glasses in their spectacles changed very frequently, and after a time they will be obliged to wear old-sighted spectacles even when walking. In my experience, ladies are much greater offenders in this respect than gentlemen.

The engraving (Fig. 45) shows how the spectacles should be worn. I am often asked for spectacles of increased power which will enable the wearer to see well fine work or small print when it is placed or held at a distance of from eighteen inches to two feet from the eyes. It is not possible to supply such spectacles ; if considerable power is required, then the work must be brought nearer to the eyes.

There is a particular distance at which each pair of spectacles will give the clearest definition, and those who value their eyesight properly will use one pair of spectacles to read with, and a weaker pair to write or work with.

Spectacles which are strong enough to enable the wearer to see small print well by artificial light are too strong for the same person to write with. The distance at which the book should be held when reading should never exceed



Fig. 45.

fourteen inches, while writing is usually done at about sixteen inches, and if the writer is tall and sits upright, which is of course the best position, the writing-paper is frequently upwards of eighteen inches from the eyes.

LONG-SIGHT OR HYPERMETROPIA.

Long-sight, or hypermetropia, is a form of long-sight which can be distinguished from presbyopia by the fact that the person who has it cannot see objects plainly, either close or distant, without the aid of convex lenses, the eye being too short from the front to the back for the crystalline lens to form an image inside the eye until the rays are made more convergent on the retina. This is a difficult affliction of the eye to test for, and it is generally considered that it cannot be done correctly unless the accommodation of the eye is first paralysed by atropine. Hypermetropia is exactly the reverse of true short-sight, but differs, as explained, from presbyopia, or old-sight, for which it is so frequently mistaken.

SHORT-SIGHT.

Short-sight, called technically "myopia," is the opposite condition to that known as hypermetropia, or long-sight—that is, objects at a distance cannot be seen distinctly. The eye in this condition cannot be focussed upon an object until it is brought within about twelve inches or less from the face. Minute objects at a distance of a few feet, which are easily seen by persons with full power of focussing, called normal or natural vision, to short-sighted persons are invisible. There is little doubt that short-sight is to a great extent hereditary; but it is frequently produced by reading in an imperfect light when very young. The book is held much closer to the face than it should be. This gives increased light, but the strain upon the focussing power of the eye is very great, and produces a permanent injury which can only be corrected by most carefully adapting concave lenses, which will throw the image of an object farther back into the eye, and cause it to fall correctly in focus on the retina.

The diagram (Fig. 46) shows the form of the eye in short-sight, when the image would be formed inside the eye before reaching the retina.

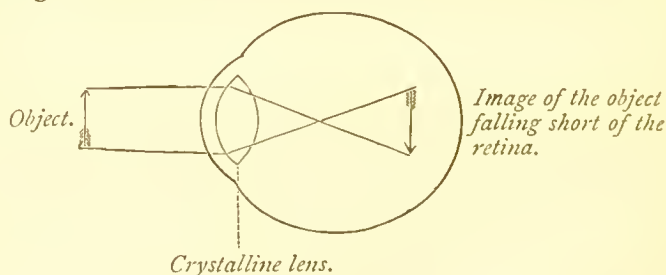


Fig. 46.

Fig. 47 shows the same eye with a concave lens placed in front of the eye, which causes the image to be formed at a greater distance from the crystalline lens, and so falls on the retina.

Short-sight should never be neglected, even though comparatively slight, and when extreme should receive the most skilful treatment. The lenses used should neither be

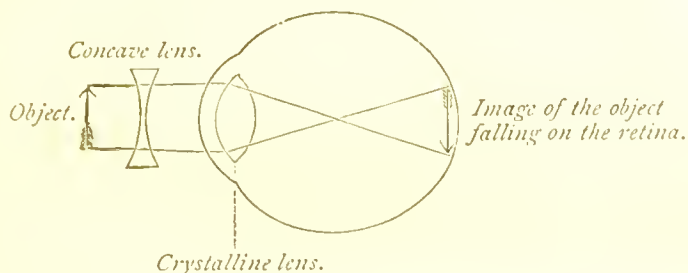


Fig. 47.

too strong nor too weak, and, as a rule, two pairs differing in focus should be used, the weakest for reading and the strongest for walking or riding.

Very short-sighted persons *should live in their spectacles*, putting them on the moment they rise, or before they leave their bedroom, and taking them off only before going to bed, wearing the weaker pair which they use for reading, so long as they are in the house, and putting on the stronger pair when walking or riding.

When clear vision of small print cannot be obtained without holding the book nearer than ten inches from the eyes, spectacles are always required, and though they may be dispensed with, it is at the risk of almost certainly doing the sight irremediable injury, or even of destroying it entirely. I have such cases before me almost daily.

It is a common mistake to suppose that myopia, or short-sighted vision, is always strong and good for close objects. In my experience, a large majority of short-sighted persons have weak sight, although undoubtedly to them objects within their range of vision appear larger than to those who can see without strain at a greater distance.

Another common mistake is to suppose that the vision

of short-sighted persons alters and improves rapidly with age. In almost every case the short-sightedness increases.

As short-sightedness is often accompanied by actual disease of the eye, it should receive the best attention.

Another mistake is to suppose that short-sighted persons can do without spectacles to read with as they grow old. This does, indeed, sometimes happen, but such cases are rare.

The power of the lenses used to correct short-sight should never be as strong as the person can possibly bear. If the concave lenses are so deep that minute objects at a distance are seen with unnatural sharpness, they are too strong, and the wearer will soon find his eyes suffering from the strain.

I frequently have correspondents who, because they require short-sighted spectacles for walking, imagine they cannot possibly require magnifying lenses to read with, and are greatly surprised when I convince them to the contrary.

As I have said, an equally common mistake is to suppose that short-sighted vision always gets longer and improves with age. It very frequently gets still shorter, and unless spectacles, accurately suited to the case, are worn, the vision becomes rapidly and seriously impaired. *It is much to be regretted that people neglect their eyes so sadly, seldom taking medical advice respecting them until they find themselves actually going blind, though they will generally consult a surgeon respecting a slight deafness, which is comparatively unimportant.*

Many persons apply to me for spectacles to whom spectacles would do positive injury, their eyes being in a condition in which they require rest and surgical attention. I have long made it a rule in all cases where I can detect disease or even functional derangement, to decline to supply spectacles until my correspondent has first sought the professional advice of a skilful *surgeon* oculist. When such persons apply to ordinary dealers in spectacles, they are

given glasses which only increase the mischief, or they are unnecessarily alarmed by being told that no glasses would be of any use to them, leaving them to infer that they are going blind.

Happily, if taken in time, there are few complaints of the eye beyond the reach of the surgeon's art, and a skilful optician may be the means of saving many eyes by giving their owners timely warning.

Failure of vision is often the first indication of some *internal* complaint which requires medical attention. With proper treatment, the clearness of vision is gained, though spectacles are mostly required, and aid materially its recovery.

It has been a great pleasure to me from time to time to hear persons say, when I have exactly suited them with lenses in very difficult cases of abnormal vision: "Why, I can see better than I have ever done in my life before." But I have derived equal satisfaction from the knowledge that in several instances, by recommending immediate recourse to a skilful physician or surgeon, I have indirectly been the means of saving my client from a dangerous illness, or possibly from loss of eyesight.

Spectacles are better than spring-folders for short-sight, particularly if the short-sight is at all extreme, because it is scarcely possible to keep the glasses in the spring-folders high enough up in front of the eyes, so that the pupils of the eyes may correspond with the centre of the glasses.

The spectacles worn when walking by short-sighted persons should have a low bridge, nearly straight, and, if anything, the upper part of the bridge should be inclined backwards instead of projecting forwards, as it does in those worn by long-sighted persons; unless this be done it will be found that raising the spectacles up so much in front of the eyes brings them in contact with the eyelashes.

I append an engraving (Fig. 48) of a pair of such spectacles as I have described for walking, showing the manner in which they should be worn.

Several of my valued scientific correspondents have gently hinted their regret at my devoting so much of my time to the adaptation of spectacles. They would prefer that I should direct my attention to improving still further the construction of the spectroscope, the microscope, or the astronomical telescope. I believe I am more usefully employed in a practical application of science to the benefit of humanity, and I know some of my medical friends support me in this opinion.

To give an illustration of what I mean :

Some four or five years since one of my scientific correspondents brought his son to me. He was a lad about 8 or 9 years old. Although so young he was a skilful

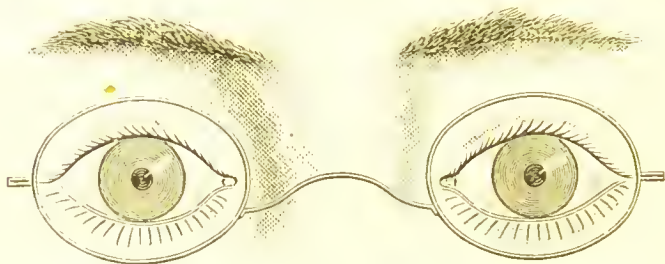


Fig. 48.

musician, playing well from music plainly printed. But his eyesight was so defective that he could not, *with any spectacles*, see clearly more than three or four inches from his face. He was, therefore, compelled to learn his pieces by heart, and his playing was limited to the one or two pieces he could remember, for he soon forgot what he had with great pains learnt. Under these circumstances I contrived and made for him a pair of small, very light binoculars or opera-glasses of aluminum, and mounted them on strong but light steel spectacle-frames. The lenses were about one inch in diameter, and the tubes of the binoculars were little more than an inch long. With these he played from printed music on a grand piano readily. I made him spectacles

with which he could read his books. Meanwhile he was put under skilful surgical treatment, and as time went on he required less and less optical assistance to his vision. Latterly he has achieved great distinction in his tasks, and plays from music by the aid of spectacles only.

The same gentleman sent his housemaid to me with a note, stating that her eyesight was so bad that she could not see to do her work ; that she had been to an optician, and also to a hospital, and she had been told nothing could be done for her case. I was able to provide her with two pairs of spectacles : with one pair she could do her work, and with the other pair she could read well.

I have often had such persons come to me in great distress, lest they should lose their means of earning a livelihood. Now, I may be wrong, but I *feel* that in suiting such cases I am doing as much good as I should be by inventing another automatic spectroscope.

Short-sighted persons should beware of changing their spectacles too often, using each time lenses of greater power. Many persons in this way irremediably injure their sight. Lenses of greater power should only be used by short-sighted persons under thoroughly competent advice. I continually have clients come to me who tell me that they require stronger glasses, and I have to inform them that they had better continue to wear those they have. Sometimes I find that it is a sight weaker which is required.

I have several clients who, under my advice, have with advantage worn spectacles of the same strength for years after they thought they must change them for a stronger sight.

In a certain number of cases the eyes become naturally longer-sighted for close objects with age, and the injudicious increase of the strength of the lenses in such cases tends to retard or even prevent this most beneficial change, at the same time straining the eyes and impairing the vision.

In cases of the most extreme short-sight, where glasses

cannot be worn of sufficient strength to give useful vision at a distance, a good small binocular, as Fig. 49, may be used with great advantage ; the strain on the sight will be less than when using glasses, because the focus of the binocular can be changed to suit the sight at various distances.

In many instances where persons have told me that they always experience a bad headache when they go to a theatre



Fig. 49.

which they impute to the excessive heat and light or both, I have recommended them to try the effect of using an opera-glass almost continuously during the performance, with the result that the headache no longer comes on. The use of an opera-glass at exhibitions of pictures will, as a rule, mitigate or prevent the headache that most people experience if they make a prolonged examination of the pictures.

TEST TYPES.

Many children are blamed and punished for inattention or stupidity in not learning their tasks, when they cannot see them. They are generally short-sighted, though sometimes long-sighted, and a few are astigmatic, and only require spectacles to assist their vision. To test their sight, get some printed letters exactly one-eighth of an inch high : place them at seven feet from the child whose sight has to be tested. If it cannot make the letters out clearly and easily,

and read them aloud quickly, then either a skilful optician or an oculist should be consulted. The same test will answer equally well for adults and children. A paragraph in block letters of type of the correct size for testing the sight in this simple manner is here given.

**HE WAS VERY SHORT, SPARE, AND
WIRY: SINGULARLY PALE FOR A
PERSON WHOSE LIFE WAS PASSED
IN THE COUNTRY. THE FACE WAS
IN SOME RESPECTS, BESIDES THIS,
A MOST STRIKING FACE TO SEE.**

FOUR FEET TO FIVE FEET.

If desired, this method of testing the sight by means of printed letters of various sizes, which are termed test-types, may be carried further as follows: letters of this size should be easily read in a good light by persons who do not require spectacles when the reader is at a distance of from four to five feet from the book.

FIVE FEET TO SIX FEET.

Letters of the size of this paragraph should be read under similar circumstances when the reader is from five feet to six feet from the book.

SIX FEET TO SEVEN FEET.

Letters of the size of this paragraph should be easily read at a distance of from six to seven feet.

SEVEN FEET TO EIGHT FEET.

Letters of the size of this paragraph should be easily read at a distance of from seven to eight feet.

HOW TO TEST THE SIGHT.

There are two good simple tests by which any one may find out for themselves whether they require spectacles. The best and simplest is the legibility of small print *by artificial light*. Figures the size of those given below should be read with ease and certainty.

83538535833.

These figures may, however, be read accurately and yet read with a strain that would soon injure the eyesight seriously. To be sure that this is not the case the reader should measure carefully how far he has to hold the print from his eyes to see it clearest: if the distance exceeds fourteen inches, then spectacles are absolutely required; some persons require spectacles when the distance at which they see small print best is not more than twelve inches. Whenever a

difficulty is experienced in reading, or strain is felt afterwards, an oculist or good ophthalmic optician should be consulted, to avoid the risk of the vision being impaired. A witty schoolmaster said to me, "I have not come to you because I want a pair of spectacles, but because I want a longer pair of arms!"

An American judge, observing that one of the counsel was holding his brief at arm's-length to enable him to read it, said, "You require a pair of spectacles, brother." "Oh no," said the counsel, "not yet." "Well, you will have to use a pair of spectacles or a pair of tongs before long, brother," was the reply.

In the ordinary way of suiting the sight from a dealer's stock, spectacles are generally given too strong to short-sighted persons and too weak to those who are long-sighted or old-sighted, while those who are astigmatic generally select for themselves or are provided with spectacles so much too strong that they are often more than double the power actually required. The effect of short-sighted persons wearing glasses too strong, as, for instance, wearing glasses strong enough for walking out of doors, to read with, is to strain the eyes and increase the short-sight.

The result of astigmatic persons wearing lenses far too strong for them, is to cause them to require their glasses to be changed frequently each time for a stronger pair, and to rapidly age their sight.

When spectacles unsuitable for the vision have been worn for some time, the eyes are drawn to accommodate themselves to the spectacles. In such cases it is frequently impossible to suit the sight correctly with proper spectacles at once. A pair of lenses should be worn for some few weeks or months, *specially adapted for relieving the strain*, and afterwards it will generally be found that lenses of a lower power will give better vision.

Of the immense number of cases I have had where the use of improper spectacles had done great mischief I will

briefly describe only three, differing as widely from each other as possible.

A lady about sixty-five came to me, complaining that she could get no spectacles with which she could read. I found that she had been using spectacles for about twenty-five years, *but she had never bought a pair*; she had used her father's, her mother's, her aunt's, or any she could just manage to see with. She was a lady of large means and not illiberal; she had simply not troubled herself to think about her eyes. I am sorry to say that I could scarcely enable her to read the leaders in a newspaper in good daylight. She had ruined her eyesight.

The second case was that of a young lady about twenty-eight, who a few months previously had had a very serious illness; during her convalescence she found herself unable to read, and finding she could see better with her father's spectacles she frequently put them on and read with them. As she grew stronger, she found, to her surprise, that she could not read without them, and was recommended by a friend to consult me. I was able to get her to read with a lower power, and, if her health improves, I shall be able again to reduce the power of her glasses, but I cannot be certain that I shall be able to completely undo all the mischief she has done. Had she applied to me when she first experienced a difficulty in reading, I should have prohibited reading for a short time, and then assisted her with lenses of a low power: these in a few months she would have been able to dispense with entirely.

The last case I will name in this connection is that of one of the most distinguished living Englishmen, who came to me for some scientific instruments. I told him that the spectacles he was wearing were nearly half an inch lower on one side than the other, and that the power was much greater than he ought to wear, and added that they were straining his eyes and doing them serious injury.

He replied that he was aware of it: that he had bought

the spectacles at a small seaside town, having lost his own, and though he had tried several other pairs since, which he had been told were more suitable to his sight, he could not bear the strain he experienced in using them.

Some time after this, he came to me with his eyes much worse, asked for a pair of spectacles, and left the old ones with me. A few weeks later he kindly told me that his eyes were rapidly improving, but that for the first few days he had the greatest difficulty in using the new pair of spectacles.

My object in describing these typical cases, is to warn others not to make the same or similar mistakes, for, to my certain knowledge, such things are being done daily.

Some most curious cases come before me occasionally, arising out of mistakes in testing the vision.

Neither opticians nor oculists, as a rule, will give the necessary time and take sufficient pains to suit complicated cases of unequal vision.

One day a gentleman having inquired of me the cost of putting an axis-cut pebble lens in one eye of his spectacles, I naturally asked him why he did not want a pair. He replied, "Because I cannot see with the other eye." "Are you quite sure the sight has been properly tested?" was my next inquiry. "Well, I have had my eyes examined by ——" (naming one of the leading oculists of the day), "and he says I never have seen anything with my left eye, and never shall." I asked him to let me test his sight, with the result that in less than half an hour he was reading a newspaper with the eye which was supposed to be useless, the other eye being covered over.

A much more striking case, among many I could mention, is this. A gentleman consulted me about his eyes who was wearing a ground glass over one eye. On inquiring into the particulars of his case, I found he had consulted a well-known oculist, who had prescribed spectacles, but they gave him only very imperfect vision with great pain, and the oculist then advised him to cover

one eye with either a black or ground glass, to get rid of the strain and double-image. I must own it was a very difficult case, but in about an hour I had him reading at all distances, from a book held in his hand, to words on the opposite side of the street, with both eyes, with perfect comfort.

My clients frequently express their astonishment at the time and pains I take to suit their sight. A leading London physician told me he was "delighted at the evident pleasure I took in mastering his difficult case."

A gentleman, who had very unequal vision, said to me, when I had made him special spectacles, "Well, I have worn spectacles for twenty-five years, and this is the first time I have not been given to understand that I was a stupid, troublesome man, because no ordinary spectacles would suit me."

One of the best-known London opticians, who does a large spectacle trade, said to me, "I cannot think how you can take such trouble about people's sight. I would not do it myself if they would pay me £5 per pair for their spectacles. I should not be able to sleep when I went to bed at night if I did." "And I should not be able to sleep if I did not," was my reply.

It seems evident to me that an ophthalmic optician worthy of the name should consider that every one who applies to him for a pair of spectacles is practically giving into the optician's charge his precious eyesight, and that the optician should consider himself bound to prove that he is worthy of the charge.

Testing the eyes and supplying spectacles to suit their defects is both an art and a science. All people must not be treated alike, as if their eyes were mere optical instruments. They are very complex physiological organs, and are controlled by the constitutions of their owners. Of two persons who are especially short-sighted, one can safely have much clearer vision for a distance given than the other. Of two persons who are astigmatic, one may have a full dioptric of astigmatism, and yet cannot bear it corrected,

while another, having no more than half a dioptric, will suffer from confused vision, and his eyes get worse and worse unless it is fully and carefully corrected.

The method of dilating the pupils of the eyes by the use of atropine, so much resorted to by oculists, is in nearly all cases unnecessary. A little extra time and trouble devoted to careful testing will enable equally good results to be obtained without its use, and the client will be saved much inconvenience and discomfort.

A lady told me that after the application of belladonna to her eyes she could not swallow any food the next morning, and it was some days before her throat got right. I know many worse cases than this, but it would be painful to refer to them in detail.

In concluding this chapter, I would say that an optician should never be satisfied because he has given a client fairly good vision. Whenever the glasses require changing he should endeavour to make some improvement which will give still clearer vision with less strain on the eyes.

The general method of suiting the sight adopted by opticians, is to give and recommend the pair of spectacles with which the most can be seen—in other words, with which the person who requires them can see the best; but this is anything but a safe rule of practice. The first consideration should be *the preservation of the sight*, though this is constantly overlooked.

On the other hand, I have known several oculists err in the opposite direction, by prescribing a pair of spectacles worked out theoretically on paper to correct the optical errors, but not calculated to give sufficiently distinct vision to be of much service.

One case of this kind was brought before me in a very amusing way. A gentleman called on me, and said, "I have consulted a distinguished oculist respecting my eyes, and he has prescribed for me a particular pair of spectacles, which I have had made. I have no doubt that they are

scientifically exactly what I ought to require; they have only one defect, that I cannot see anything through them. As I am an artist, this defect is of some consequence."

I had the pleasure of contriving and making a pair of spectacles for him which were without this slight defect.

ASTIGMATISM

Is a condition of the eye in which the cornea is not symmetrically spherical, but approaches the cylindrical; that is to say, the front of the eye, instead of resembling in form a piece cut off from the side of a large marble, resembles a slice cut off from the *side* of a cork, similar to the figure in the following diagram (Fig. 50).

With an eye of this form, lines are seen much more clearly in one direction than in another. For instance, the figures on a clock-face will be of different degrees of visibility, and will vary in sharpness *as the dial is turned round*.

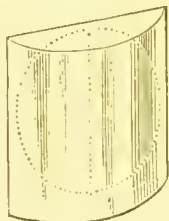


Fig. 50.

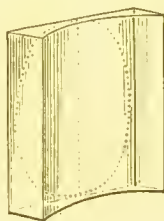


Fig. 51.

But it is quite possible with a weak astigmatism to see these tests pretty well, and yet suffer strain which will lead to impairment of vision, unless proper lenses are adopted to suit the sight.

To detect weak astigmatism of this kind I have had several letters engraved (Fig. 52); these letters, to those who are not astigmatic, should all appear equally black and plain, that is, all equally sharply defined and distinct. If some appear faint, or tinted blue, brown, or grey, while others are blacker, then the eyes are astigmatic, and the sight should be corrected by means of cylindrical lenses.

To test the eyes carefully it is necessary to close first one and then the other, and look *with one eye only* at the letters.

Frequently only one eye is astigmatic, and this at times creates the greatest trouble, because it gives unequal vision. The letters should also be looked at with the page held

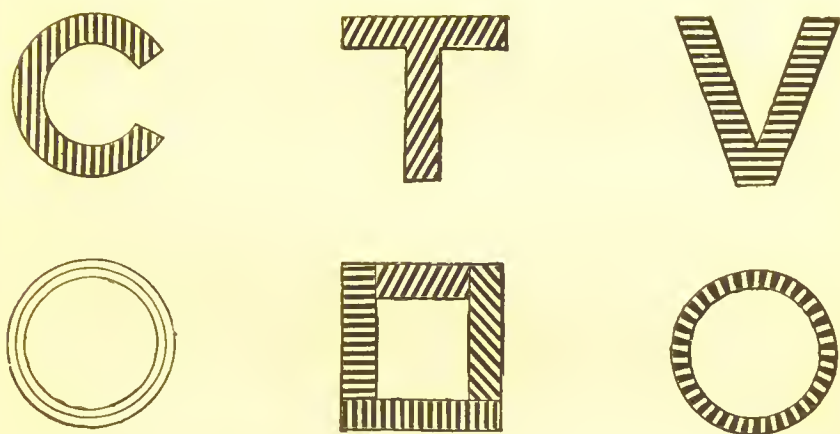


Fig. 52.

upright, and then turned on one side. If there be astigmatism the blackness of the letters (diagram, Fig. 52) will appear to change, and those which appeared lightest with



Fig. 53.

the page upright, will appear darkest when it is turned sideways, and *vice versâ*.

The straight lines and circles in Fig. 53 should be seen equally clear and sharp in every part of the diagram.

Let any person who suspects that there is some defect in his or her eyesight observe the appearance of the two circular diagrams (Figs. 55 and 56), carefully looking intently at them with each eye separately, closing the other or covering it over with the hand.

If astigmatism should be present the lines will not be seen with equal distinctness in all parts of the diagram, but will in some places look blurred and indistinct, or, at least, broader and fainter in some directions than they do in others.

The most delicate test, however, that I have been able to devise is shown in Fig. 54.

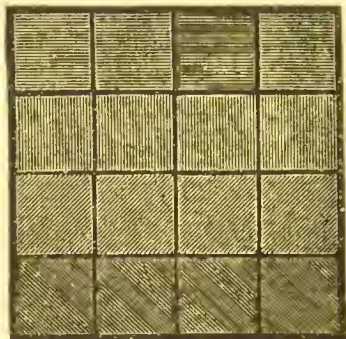


Fig. 54.

The fine white lines on this diagram in all directions should, with an eye that is not astigmatic, be seen with equal distinctness.

In many cases astigmatism exists without being suspected, and unless proper spectacles are worn to correct it, eventually the vision may become greatly impaired.

An instance of unsuspected astigmatism which has become known to me since I published the first edition of this book is both curious and interesting.

On the 22nd of February, I received a letter from the

Rev. Lionel Bartlett, of 72, Warleigh Road, Brighton, by whose kind permission I give the following extract:—

“I am very much pleased with the spectacles. Feeling sure that my sight was normal, and that I did not in consequence stand in need of spectacles, I have always set my face against the idea of using them. But the ease with which I can see with the astigmatic cylindrical lenses,

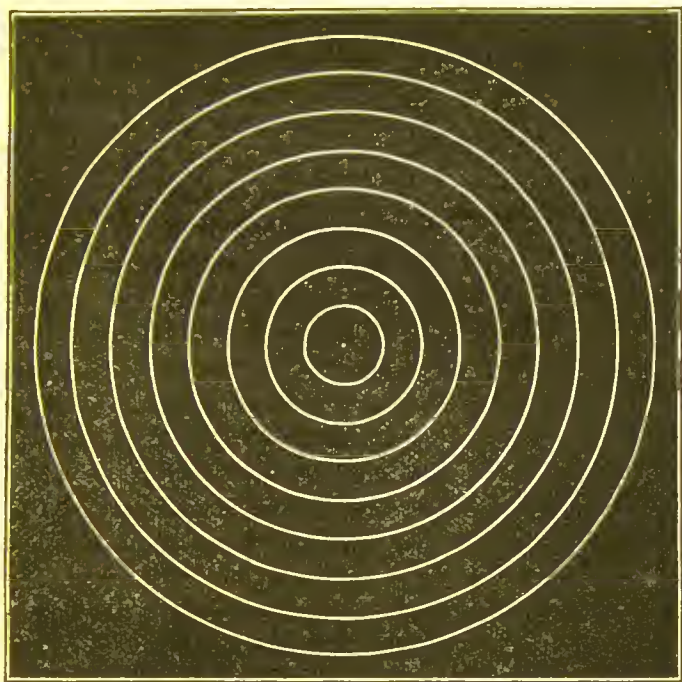


Fig. 55.

compared with the unaided sight, has disabused me of my preconceived notions on the subject.

“Before reading your book, ‘Our Eyes,’ I was not in the least aware that there was such a thing as astigmatism, and could not imagine why my eyes sometimes seemed strained after reading for a length of time continuously. I can now read for hours together, and see

much more clearly and distinctly than I could before, without any strain or aching of the eyes. Yet even first-sight spectacles make my eyes ache at once. I have much pleasure in affording this unasked testimony to the soundness of your principles."

The defect is corrected and clear vision given by adapting cylindrical lenses of the form shown in Figs. 50 and 51,

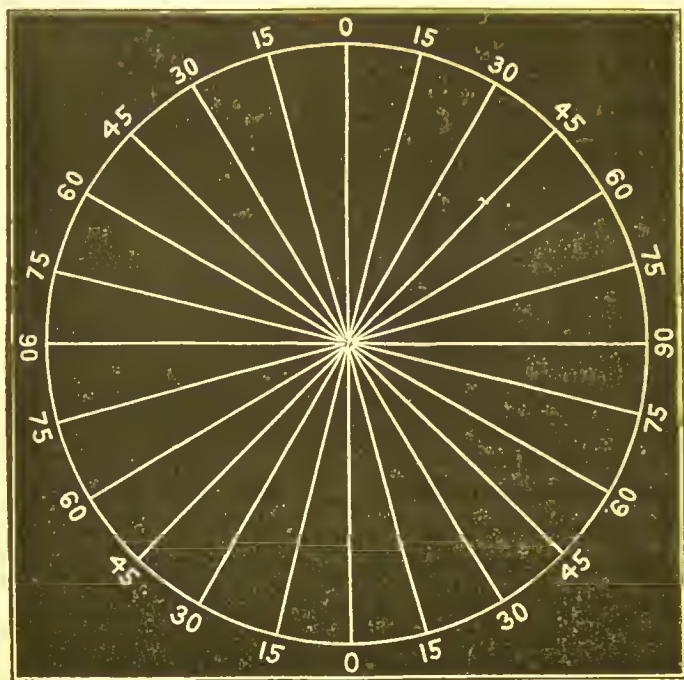


Fig. 56.

p. 76, in spectacles in such a manner that the cylindricity is in the contrary direction ; that is, at right angles to the cylindricity of the crystalline lens or cornea.

Such lenses have occasionally to be put into trial frames with round eyes, in which the glasses will turn easily. The wearer should then close one eye, or cover it with the hand, and slowly and carefully turn the glass round while looking

at the figures on a clock-dial, and the glass should be left in the position in which the figures are seen with equal clearness all round the dial. The other glass should then be adjusted in the same way. The optician should carefully note the direction of the axes of the cylindrical lenses, and should cut them into an oval form and fit them up in oval frames.

I cannot recommend any person to try and get suited with spectacles for correcting astigmatism, when they know of its existence, by correspondence. The eyes frequently differ, both in the amount and direction of the astigmatism, and often differ in focus also, and the work of turning the lenses round to adjust them ought to be performed under the supervision of either a skilful optician or an oculist.

IRREGULAR ASTIGMATISM.

There is an irregular form of astigmatism in which the cylindricity is greater in one portion of the cornea than in the other, resembling a slice cut lengthwise off from the side of a pear.

Such cases tax the optician's art to the utmost, but I have treated several of them successfully by *inclining* either cylindrical or spherical lenses before the eyes.

SPECTACLES AND FOLDERS COMPARED.

The question is continually being put to me: "Which would you recommend me to have now, spectacles or folders?"

The answer I give depends on a variety of circumstances.

When taking to glasses for the first time I generally recommend folders, for three reasons—

1st. While people can manage to see by straining their vision, they will not be at the trouble of taking their spectacles out of the case and putting them on; and

2ndly. When they find themselves compelled to use

them, they will not be at the pains of taking them off and returning them to the case when they are not looking at near objects.

3rdly. Spring-folders can be worn by a very thin silk cord round the neck: any one used to wearing them in this manner is not likely to go out without them, and cannot possibly lay them down and leave them when away from home, as is frequently done with spectacles.

I have referred elsewhere to the habit many persons acquire of keeping on their reading spectacles to look at distant objects, though this arises almost entirely from the wish to avoid the trouble of taking them off and putting them away when they have left off reading. The use of folders has greatly increased, since the non-pressure form of folders has been perfected. I cannot recommend the folders fitted with cork nose-pieces, which have been so much advertised. After a short time the cork dries, shrinks, cracks in pieces, and comes out, leaving the claws which held the cork to stick into the wearer's nose. I have succeeded in making non-pressure folders with very light springs, fitted with tortoiseshell nose-pieces (Fig. 59, p. 84). These have all the advantages of the cork folders, without any of their drawbacks.

Where expense is not of consequence, it is the best plan always to have both spectacles and folders. The spectacles should be used for reading, writing, or drawing continuously for any length of time, and the folders whenever the vision requires assistance for a few minutes at frequent intervals. This is generally the case throughout the day, while the spectacles may be reserved for use at night-time. If used in this manner the spectacles may mostly with advantage be furnished with lenses a little stronger than those in the folders, as more assistance is required by the eyes in artificial light than in daylight.

Many persons who would like to use spring-folders say they cannot do so because they cannot get them to hold

properly on the nose. This should not be so. I usually find that they have only been shown at the utmost two or three patterns, and one of these was expected to fit any face. Of course they would not; and having chosen a pair unsuitable for their features, disappointment was the natural result.

The bridges, springs, and rests should vary for eyes which are exceptionally wide apart or narrow; and for noses broad or thin, or, in fact, which differ in any way from the general type of features.

Folders are not so useful as spectacles, either for long or short sighted persons, where the long or short sightedness is extreme; because the lenses in such cases must be thick and heavy, and it is difficult to keep them with sufficient accuracy opposite to the centres of the eyes.

Those who suffer from astigmatism cannot always wear spring-folders with the full benefit which the cylindrical lenses should give them in the way of clear definition.

A NEW FORM OF FOLDERS.

Since the fifth edition of this book was issued, a great stir has been made about a new form of frame for spring-folders,

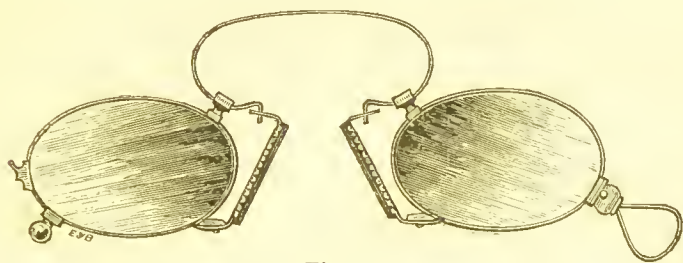


Fig. 57.

and representations have been issued that this form of folders, shown in the engravings (Figs. 57 and 58), is only to be had of one house. In truth, almost any optician can supply this folder. It has two peculiarities—one, a double

set of springs, which reduce the pressure on the nose, for those who can be suited with it ; but it will not suit everybody. The second peculiarity is that the inside of the plackets which rest on the nose are lined with cork instead of tortoiseshell. This is anything but an advantage ; true,



Fig. 58.

they feel soft to the face for the first time they are put on, but that is the only advantage they possess, and even that they do not retain.

As this form of folder is very ugly, and indeed disfiguring to ladies, I have noticed with great pleasure that they are

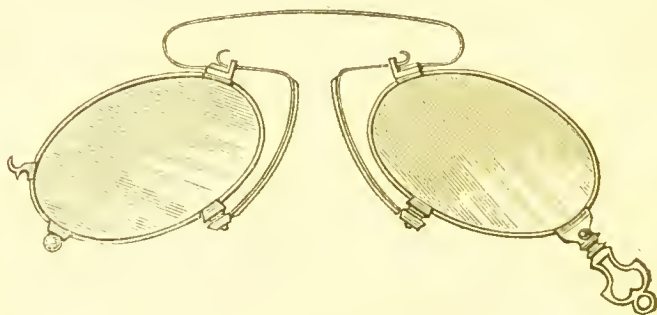


Fig. 59.

not being worn nearly so much as they were three or four years ago.

The engraving (Fig. 59) shows the most efficient non-pressure folder I have had made ; it is both more graceful and more durable than the Canadian folder.

A glance at the different patterns of spring-folders I have had drawn and engraved (Figs. 57-67) will show the variety



Fig. 60.

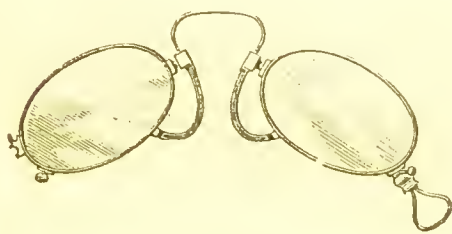


Fig. 61.

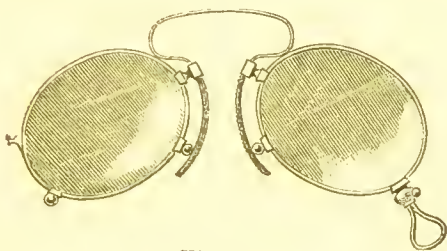


Fig. 62.

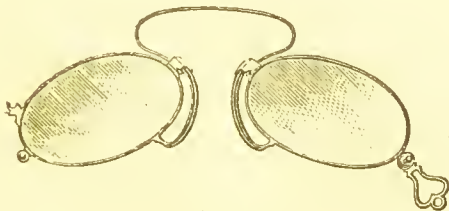


Fig. 63.

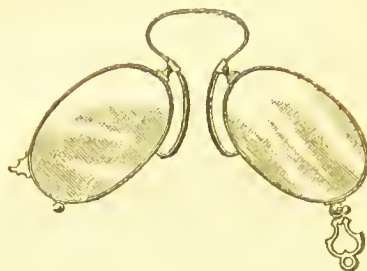


Fig. 64.



Fig. 65.

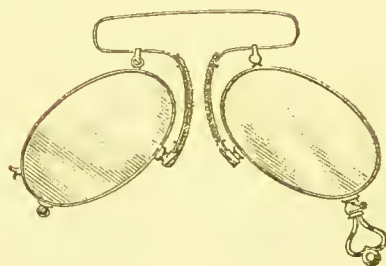


Fig. 66.

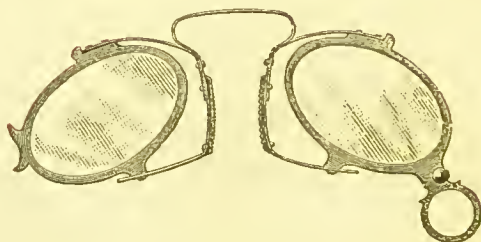


Fig. 67.

necessary to enable any one to select a pair that will set well on the face, will not pinch the nose, and yet will not be liable to fall off.

Those who have weak and extra-sensitive eyes, and suffer whenever they are in a bright light, but who experience no difficulty, under favourable conditions, in seeing clearly objects at all distances without the assistance of spectacles, would yet find great benefit from carrying two pairs of spring-folders with perfectly plane glasses. These occupy so little space that they will easily go into the waistcoat pocket. One pair should be of white glass, the other of London smoke or neutral tint. The white glasses should be used to protect the eyes from wind, dust, and insects, and the tinted glasses to modify the glare of either direct or reflected light.

I have said that those whose eyes are weak should adopt the above contrivances, but all persons would do well to resort to them who wish to preserve their sight unimpaired, and all will experience great comfort at times from employing them. *Why should our eyes, which are the most sensitive and important organs of our bodies, never be protected until they have been injured by our neglect?*

UNEQUAL VISION.

By unequal vision I mean a person having two eyes which differ in focus. The optometer is the only good test for this inequality, which is much more common than is generally supposed. When the difference in focus is very great, as a rule spectacles which equalize the focus cannot at once be worn; the strain upon the eyes being unbearable. But, if a pair of spectacles be worn at first in which the lenses differ only slightly in focus, and the difference in focus is then slowly increased, the eyes may after a time become accustomed to the difference, and in this manner

both may be suited and clearer vision with comfort obtained.

This is easy to understand ; in all such cases vision with one eye has been disregarded or suppressed, and such an eye when called on to work feels like a left hand which is called on to use a pen or a knife for the first time.

About two years since a gentleman came to me who had just begun to require the aid of spectacles. On testing his eyes separately I found very great disparity of focus. I supplied him with a pair of trial spectacles in which the lenses exactly suited his eyes, so that they had both distinct vision at the same distance from a near object. The effect was pleasing to him for a few moments, yet he could not bear to look through them for more than a few minutes. As soon as I knew this, I made him a pair of spectacles in which one lens exactly suited the eye with which he had the clearest vision, and the other lens differed considerably in focus in favour of the weaker eye. These were readily worn. After about two months I increased the strength of the lens for the weaker eye, and I did it three or four times at intervals of two or three months. Now the gentleman wears a convex lens of sixteen inches focus on the left eye and a lens of forty inches focus on the right eye with great advantage and perfect comfort, and spectacles in which the lenses are of the same focus are unbearable to him. It follows that the images seen by his two eyes, though equal in clearness, differ in size. This, as I anticipated, did not interfere with his seeing plainly, as two well-defined images of different dimensions will coalesce. If any person having equal vision, by which I mean eyes of equal focus, will take an ordinary stereoscope, and place on one side of it, in the centre of the field of view, a bronze-copper halfpenny, and on the other side, in the centre of the field of view, a bronze-copper pennypiece, although the two images given through the lenses will differ very greatly in size, he will see only one image clearly defined, the dimensions of which

will appear to be midway between the size of the two coins in the instrument.

I have got many persons to make this experiment, and in every case with the same result.

From a knowledge of this fact, I ventured upon the prediction that if two discs, of colours exactly complementary to each other, could be presented one to each eye, the resulting image seen by the observer would be white.

Mr. Stevenson, a member of the Council of the Royal Microscopical Society, some time afterwards used such discs, produced by means of polarized light, and the result was as I had predicted.

At the last meeting of the British Association, held at Bath, the sight of a large number of people was tested by giving them "diamond" type to read at six, nine, and twelve inches. The results were noted as three degrees of sight-efficiency, in percentages, as follows:—

	RIGHT EYE.		LEFT EYE.	
	Men.	Women.	Men.	Women.
Short-sighted	17·9	19·8	22·4	19·1
Good sight	70·2	65·9	63·4	66·3
Long sight	11·9	14·3	14·2	14·6

In this table the women have the best sight. The left eye in the women is the best, and the right eye in the men, in the following proportion:—

	Men.	Women.
Right eye equal to left	26	31
Right eye stronger than left	35	28
Right eye weaker than left	24	28

Generally speaking, the right eye is the strongest, and has the most acute vision. It will impress most persons to learn in what a small proportion of cases the right and left eye are equally strong. Yet in all such cases where the spectacles are purchased haphazard only one eye will be suited, and then trouble begins. There is only one way to guard against the sight being injured. In every case the sight should be tested carefully of each eye separately, with proper

instruments and tests, by a properly qualified oculist or optician who has had great experience, and special spectacles should be made in every case to suit the sight.

The system of making spectacles by the gross should come to an end. Sight-troubles are increasing every day, and this system is one main cause of them.

The general method of suiting the sight from a tray is attended with very bad results in cases of unequal vision—that is, where there is a difference in the focus of the eyes or there is astigmatism, which is commonly different in each eye.

Such a difference is of almost daily occurrence in my practice, and I once went through a long day without finding two eyes that were a pair. It seems strange that this is seldom recognized by the persons themselves until their attention is drawn to the fact. I have recorded five cases of persons who have applied to me for spectacles who were practically blind with one eye, yet they had never suspected it.

Having mentioned this to one of our most distinguished surgeon-oculists, he told me he had recently heard of such a case. A City merchant was crossing King William Street, when some dust blew into one of his eyes. To his utter dismay he then discovered for the first time that he could not see with the other, and he was with difficulty saved by a bystander from being run over.

While such cases as this are, of course, rare, many instances occur of one eye being short-sighted and the other long-sighted, so that the difference in focus between the eyes is not a matter of inches, but of feet.

When people with unequal vision have a pair of ordinary spectacles given to them with lenses of equal focus all the work is thrown on one eye. It might be supposed that the sight of this would suffer, but this is not so; it is the sight of the eye which is not used, because it is provided with a wrong lens, which suffers; but, after a time, the eye which

is constantly used begins to give great trouble from sympathy with the failing sight of the unused eye. It thus generally happens, when a client complains to me of one of his eyes being bad, that upon testing the sight carefully I am able to show him, or, indeed, he occasionally then finds himself, that the eye he complains of is really his best eye. From which it follows *that people should not trust their judgment in selecting spectacles for themselves*, nor can they be assisted by the dealers in spectacles who dub themselves opticians.

Byron has written—

“ A man must serve his time to every trade
Save criticism—critics all are ready made.”

And so, it must be added, are opticians; at least, they appear to think so.

UNSYMMETRICAL FEATURES.

These also are very common indeed. No two halves of a leaf are ever exactly alike. Nor are the two hands of the same person, as regards the arrangement of the veins; and as a rule no person's nose is exactly symmetrical with the other features, nor do the two sides of the face exactly resemble each other. Usually the inequality is so small that it may be passed over; but whenever it is noticeable it should not be passed over, but the frames of the spectacles or folders should be made so as to exactly fit the face. It might be thought that this would make the want of symmetry more palpable, but the very reverse is the case. Spectacles with symmetrical frames, when worn by a person who has unsymmetrical features, cause the want of symmetry to be noticeable directly. A few months since I made a pair of spectacles for a distinguished American professor. I corrected the frames of these for a slight want of symmetry in the features, and the professor called upon me shortly afterwards and told me “they were the greatest

luxury he had ever had in his life." All spectacles he had previously worn sprang out of position when he walked; and as the lenses were very deep concaves, the centres no longer corresponded with the centres of his eyes. "Now," he said, "for the first time I am unconscious of the fact that I am wearing spectacles."

SPECTACLES WITH INACCURATE LENSES.

One great evil results from spectacles being sold by people who are not opticians. The spectacles they sell, being manufactured by grosses to supply the wholesale market, are frequently, through the carelessness of the workmen, glazed *with lenses which differ in focus*. The effect of wearing such spectacles soon becomes painful, and if persisted in, results in serious mischief to the eyesight of the wearer. I have known of many instances, but one very interesting and peculiar case I recollect well.

A minister came to me for a valuable astronomical instrument he had been commissioned to purchase by a friend. When he had done this he asked me if I would examine and test his eyes. I found the left eye inflamed, but both eyes equal in focus, and very nearly equal in acuteness of vision. On inquiry, I found that whenever he read or wrote the inflamed eye became rapidly worse. I then asked him about his spectacles. He said he had purchased a pair some weeks previously in a country town, and he now recollected that his left eye had troubled him much more since he had worn them. On hearing this I tested the lenses in his spectacles separately, and found *they differed six inches in focus!* As the gentleman had some knowledge of optics, I was able easily to prove this to him; and upon my doing so he kindly said to me, "Pray accept of this pair of spectacles, Mr. Browning, and keep them in your cabinet of curiosities." I did, and they are in my possession still.

I recommended him to use a little Goulard water to his eye, and to give it all the rest he could. At the same time I furnished him with a pair of spectacles suited to his requirements; those he had purchased, as well as having lenses dissimilar in focus, were much too strong for him.

As he was staying in London for some time, he favoured me by calling soon afterwards to say that in a few days his eye got quite well. Now, in this case he might have consulted a clever medical man, and yet the cause of the mischief might have remained unsuspected and undiscovered. Even in the case of London opticians, where a large stock of good spectacles is kept, it is often thought that any one may attend to a person who requires spectacles. From this cause I have frequently applications from persons who have failed to get suited elsewhere. One case particularly occurs to me. About three months since, late one afternoon, a lady came in who told me she was nearly eighty years old; she said that she had been told by her medical adviser, or a medical friend, to go to one of the largest opticians in town for a pair of spectacles; that she had just been to them, and that they had assured her that they could give her no spectacles which would be of any use to her, and that she must never expect to read again. This had grieved and alarmed her. In less than a quarter of an hour I had suited her with a pair of spectacles, with which she could read the small type of a daily newspaper almost as quickly as I could read it myself.

At the risk of repeating myself, I must here say that as a rule the whole of the low-class spectacles, sold at prices varying in price from 1s. to 2s. 6d. per pair, have *inaccurate lenses* in this sense, that the centres of the lenses—that is, the thickest part of a convex or magnifying lens which is used to correct old-sight, or the thinnest part of a concave or diminishing lens which is necessary to correct short-sight—is never in the centre of the oval frame, where it should

be so as to come opposite to the pupil of the eye when worn.

Now, it is well known that squinting in children can frequently be cured, under medical advice, by giving them spectacles to wear in which the centres of the glasses are wider than the centres of the eyes. This causes the wearer to turn the eyes outwards; and eventually the eyes, when the spectacles are taken off, remain in the right direction.

A similar action is exerted in all cases where the lenses are out of centre, as I have described; and though the eyes are not turned, yet the vision is greatly impaired by their continued use. *Such spectacles are disastrous when they are not required.*

FRANKLIN'S SPECTACLES.

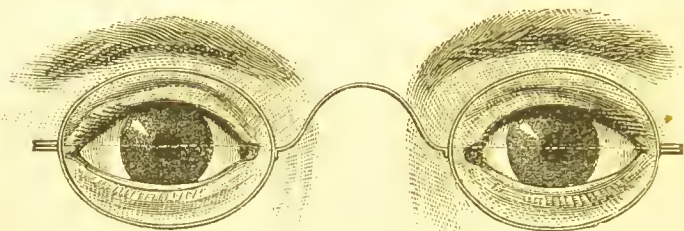


Fig. 68.—Franklin's Spectacles.

It is curious that Franklin's spectacles (Fig. 68) are not in more general use. They are spectacles in which the lenses are divided horizontally in the centre, the upper and lower halves of the lenses being of different strength.

There are many cases in which these spectacles would be found highly useful. For instance, where a person is long-sighted for all distances, that is, can neither see objects at a distance nor close, except through convex lenses, yet requires less powerful lenses for a distance than for a close object. In such a case the upper halves of the lenses require to be weaker than the lower halves.

Also, in short-sighted cases, where it is generally the

case, deeper concave glasses are required for objects at a distance than for reading or writing.

And again, for cases of short-sighted persons who have become long-sighted for close objects only, and who require concave glasses for a distance and convex glasses to read and write with.

In all such cases, spectacles with divided lenses can be used with great advantage, particularly when travelling, as one pair of spectacles which may always be worn will answer for all purposes.

To artists especially, whether portrait or landscape painters, I would strongly recommend such spectacles, because they will enable them to see the object they are drawing, and the drawing itself, equally well.

All the artists I have made them for have been delighted with them.

ARTISTS' SPECTACLES.

It is a well-known fact that the work done by an artist is frequently of less value after he has reached a certain age. This, in my opinion, is often caused by failing eyesight. Spectacles would, in many cases, restore the full power of vision; but spectacles of ordinary construction might be almost useless. Under the head of Franklin's Spectacles, I have briefly described the kind of spectacles most generally useful, but nearly every case requires special treatment. Some artists should have spectacles which they can look over when they wish to see objects at a distance; others need frames made so that they look through the lenses at distant objects, and under the spectacles at their own drawing (Figs. 24 and 25, p. 42).

A well-known landscape artist, who came to me for reading spectacles, fortunately mentioned casually in conversation that he had been compelled to give up painting large pictures because he had been unable to get any

spectacles with which he could see to paint them. In a few minutes I fitted up glasses with which he could see well a picture 6 feet by 4 feet, placed at several feet from him. He at once said he should resume painting large pictures.

HOW TO PUT ON SPECTACLES OR SPRING-FOLDERS.

It might seem unnecessary to give instructions over such a simple matter as this, but experience has taught me that a great many persons put on their spectacles in such a way that they actually injure their sight with them.

Spectacles for reading, drawing, or doing needlework should be worn low down on the nose, and so should spring-folders. They assist the vision more when worn in this manner without putting so much strain on the eyes: the wearer is also able to look *over* them at distant objects. When worn to correct old-sight, that is, indistinct vision of near objects, they should always be taken off when moving about. It is dangerous to go down steps, alight from a carriage, or get out of a train with them on, as refraction causes objects to look higher than they are when seen through them.

Short-sighted persons should wear their spectacles (which should have a low bridge) well up in front of the eyes, and well away from them, so as to be quite clear of the eye-lashes.

Both with spectacles and folders great care should be taken to put them on evenly, straight across the face, with the centres of the glasses opposite to the centres or pupils of the eyes. Most persons put them on with the glass for the right eye lowest through holding them principally with the right hand. This remark applies more particularly to spring-folders, which are often adjusted on the nose with the aid of the right hand only. The cord by which the folders are suspended is also attached to the rim of the

right eye-glass, and gets occasionally pulled down a little. The result is that the right eye-glass is frequently from a quarter to half an inch lower down on the face than the left eye-glass, as shown in the engraving (Fig. 69), and this puts a strain on both eyes. Persons who wish to avoid this error should put on their eye-glasses in front of a



Fig. 69.—Wearing Folders at an angle.

mirror, and adjust them correctly. When they have no mirror at hand they should put them on by using both hands and with a slight tendency to place *the glass for the left eye the lowest*. If this precaution be taken it will generally be found that the glasses will really be set symmetrically on the face as they should be.

THE CARE OF SPECTACLES.

It seems never to occur to most people that spectacles require taking care of. They are laid down anywhere, and the glasses get scratched, or they are let fall and the

frames bent out of all shape; then they are roughly straightened and put on again. Strangely enough, when they are worn greatly distorted in shape for some length of time the wearer cannot bear to look through a pair of spectacles of symmetrical form. Until they lose or break the old spectacles past mending, though they are ashamed of their shabby and unsightly appearance, and annoyed at the difficulty they experience in getting them to hold on the face, they will not bear the strain on their eyes of wearing a new pair.

Spectacles and spring-folders should be kept in good shape, and opticians should be ready to set them right for their customers from time to time, free of charge, unless some new parts or repairs are required. Gold spectacles can be kept in shape best, as from the great ductility of the metal they can be bent any number of times without breaking. Gold spectacles can also be repaired easier and stronger than any others. The broken parts of steel spectacles are soldered together with brass. The broken parts of gold spectacles ought to be soldered with gold, and become as strong as the other parts of the frames.

Spectacle lenses should be kept clean by wiping them with a soft, well-worn cambric handkerchief or a piece of soft wash-leather. A silk handkerchief, so often recommended, is not good for this purpose, as it makes the glasses electrical and causes the dust to adhere to them.

Both spectacles and folders should be protected by being carried and kept in rigid cases. The flat snap-catch cases, generally used for gold spectacles and folders, are the best; the frog-mouth are next in usefulness, and the soft cases with a flap and tuck are the worst, as under very slight pressure they bend, and the lenses or frames are broken.

SINGLE EYE-GLASSES.

Wearing a single eye-glass has happily of late become less common than it used to be, but it should be confined to those who are blind with one eye. I need say nothing respecting the unpleasant expression given to the face caused by the contortion of the features, which is made to keep the eye-glass in position. This is a small evil compared to the injury done to the eyesight by working one eye at the expense of the other.

Those who wear a single eyeglass soon acquire a habit of seeing with the eye only on which it is worn. The vision of the other eye is suppressed ; that is, the image which is formed on the retina remains unseen—a convincing proof that people do not see with their eyes, but with their brains. Suppressing the vision of the eye is almost as hurtful as straining the vision. The muscles of the eye that remain unused wither and lose their power, and the sight of the eye is rapidly impaired. Yet even in such cases as this, by the use of proper lenses the sight may be to a great extent regained.

INVISIBLE SPECTACLES.

Invisible spectacles or folders have two advantages : they are of the lightest construction that can be made to act efficiently, and the lenses cannot come out of the frames because the frames are smaller than the lenses, being let into the glasses, and thus rendered invisible to any one in front of those who wear them ; but as they are so slight, they should only be worn of the best material and workmanship. And here I must warn my readers against confounding these invisible spectacles and folders with the so-called *frameless* spectacles and folders. As now generally made and supplied, these are a disgrace to the optician's art. The springs, sides, and loops in these wretched things are

riveted directly on to the glasses, while the glasses are frequently twice as thick on one side as they are on the other. This causes them to act as prisms, twisting the eyes, and having a tendency to produce double vision.

The price charged for these contrivances is very low, and yet they are most expensive to wear, for the glasses crack across, and drop in halves just where the metal is riveted on to them.

HOW TO BLIND YOURSELF.

At the risk of being misunderstood I must express my surprise that so many persons exercise their utmost economy in their spectacles at the expense of their eyesight. I fear I shall scarcely be believed when I say that I have seen a gentleman reading his newspaper, day after day, in a railway carriage, by holding less than half a single lens which had belonged to a pair of frameless folders up to one of his eyes between his finger and thumb. I give an illustration of this optical instrument of torture (Fig. 70). Let any one try to

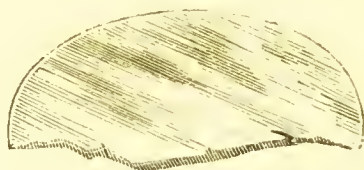


Fig. 70.

read with a small piece of lens, held in one hand in a railway carriage in motion in the manner I have described, to realize my meaning. When the spectacles or folders are fitted properly to the face the lenses and the eyes move together, and those who read in a train with spectacles experience no more difficulty in reading with them than those do who are able to read without them. But when reading with a lens held in the hand, the arm and hand are jerked in one direction, and the head and eye in another, and thus the motion of the print before the sight

is greatly increased. Move any lens before the eye while looking at an object through it, and the object will have an apparent motion given to it directly.

While many persons exercise such unwise economy as I have referred to, there is, I am aware, a large minority, and I have reason to believe an increasing one, who are anxious to use only the best spectacles they can obtain, exactly suited to their case. For the guidance of such as these I have written this book.

I continually hear the remark, "My eyesight was good all my life until I had to take to spectacles, but since I have used them my sight has failed very fast." In almost every instance, on inquiry, I have traced the impairment of vision to the use of improper spectacles. I sincerely trust that the perusal of this little book may prevent many from injuring their sight in a similar manner.

POPULAR KNOWLEDGE ABOUT THE EYES.

It is such a pity that people think that they know anything about their eyes. The character of their knowledge I can illustrate best by an anecdote.

On one occasion, when I attended a great rehearsal by Mr. John Hullah at Exeter Hall, everything went well until the chorus had to sing "Rule Britannia." They had not gone through many bars before Hullah rapped on his desk loudly with his baton, and cried out, "Stop, stop! You all know this, I see; but you all know it wrong!"

People who are very short-sighted are, as a rule, under the impression that they ought to read without spectacles, but that it is indispensable they should have strong spectacles for use out of doors; yet, if the distance at which they read small print is much under ten inches, it is imperative they should have spectacles to read with, or they risk their eyes going seriously wrong in some way, such as squinting, double vision, posterior-staphyloma or hæmorrhage. In some

instances the retina is actually torn off by the strain put upon the eyes in reading continuously without spectacles. Indeed I have known more instances of the sight breaking down from short-sighted people reading without spectacles than from all other sources put together; and this urgent warning I now give at the request of a lady who had almost lost her sight when she came to me, from this cause.

Squinting is very commonly a result of neglected short-sight. The tendency is also to use one eye only, which leads to all kinds of trouble.

LADIES' VEILS.

The question has frequently been asked me, "Are ladies right in wearing veils, or do they injure their sight by doing so?" Looking through fine net-work is undoubtedly teasing to the sight, and therefore it would seem to follow that veils must be injurious. But it should be borne in mind that veils tend to subdue excessive light in summer, and shield the eyes from the very bleak east winds in winter; they also protect the eyes against insects, dust, or any other foreign matter getting into them: for these reasons I consider that ladies are right in wearing them. Let it be understood, however, that the veil should be fine plain *black* net—nothing more; beaded and spotted or worked veils have much to answer for in injuring the eyesight.

A lady who was wearing a spotted veil having called on an American oculist, he said to her, "Madam, I should be sorry to say a word against that veil you are wearing, because I reckon every spot on that veil ought to be worth five dollars to me."

White, light-coloured, or spotted veils should therefore be most carefully avoided.

INFLAMMATION OF THE EYES.

I am frequently asked, "What is the best remedy for slight inflammation in the eyes?" I prefer to quote the advice of a medical friend, Dr. Walters, who says:—

"Where the eyes are sore from exposure to cold wind or bright sun, a safer lotion than Goulard water is one containing two grains of sulphate of zinc in an ounce of water. I should, however, strongly advise those who cannot distinguish between the different kinds of sore eyes to content themselves with still simpler modes of treatment. The eye is a very sensitive organ, and easily damaged by haphazard treatment. If particles of grit enter the eye during a ride, they should be promptly removed with a soft clean handkerchief. For this purpose it may be necessary to evert the lids, a simple manœuvre easily learnt from any medical man. If at the end of the ride the eye is still sore, rest both eyes, and apply to the injured one a folded handkerchief kept saturated with cold water, which may be tied on and worn all night. If next day the eye is painful and sensitive to light, bathe frequently with hot water until it is easier, and then apply the cold-water compress as before. This will be sufficient to cure slight cases, and in more serious ones it is safer to have early medical advice."

FATIGUE OF THE EYES.

When the eyes have been used for a long time by artificial light and become fatigued, it is a useful plan to have at hand a lotion composed of rose or elder-flower water, two ounces; wine of opium, half a drachm; French brandy, one drachm. Mix, and occasionally bathe the eye with a fine piece of sponge. The grateful sensation of relief will be at once evident. It will allay inflammation and preserve the sight. The eyes should be closed while they are being bathed, but a small amount of the lotion entering the eye will be beneficial.

THE CARE OF THE EYES WHEN RIDING, DRIVING, OR CYCLING.

The following chapter is the result of a conversation with my friend Mr. J. B. Marsh. This gentleman, being an expert shorthand writer, took full notes of all I said, and then kindly placed them at my disposal.

People who ride, drive, or cycle should wear a pair of folders with large glasses, even those who are not in the habit of wearing spectacles, to keep the wind, the dust, and insects out of their eyes. If the light is very bright the glasses should be slightly tinted. This is a most useful precaution when riding over chalk roads, such as those in the south of London, and in Kent generally. If there is no defect in the sight, then the folders should have plain parallel glasses; if short-sighted, then the glasses should be slightly concave.

Not a few have come to me suffering from the effects of insects, dust, or the minute particles of hard substances being blown into their eyes. The intrusive matter sets up irritation and slight inflammation. Small flies which inflict stings create a most injurious effect. Very frequently a fly creates a serious danger if it gets into the eye in particular circumstances. I was once riding down a very steep hill in Kent, between Titsey and Westerham, and a sharp piece of flint was blown into my eye. The pain was so great that I could not see with the injured eye, and the other watered from sympathy, so that I was practically blind and quite helpless. Upon another occasion I was riding down an almost unridable road from the Saltbox near Westerham; there were rough lumps of rock jutting up, when two little green flies got into one of my eyes, and three flies into the other; this made me quite blind for a time, and I was riding on a road which was nearly as steep as the roof of a house; a friend who was with me came to my assistance.

If at that time I had had my folders on, the pain I suffered and the danger I got into would have been avoided altogether.

Upon one other occasion a big fly struck me in the centre of the eye-ball of one eye, and I was made completely blind for a few seconds. But folders are not only a protection against flies and hard particles of matter; they also afford complete protection against high winds. A strong east wind, for instance, acts very injuriously upon the eyes unless they are protected. It is quite absurd for people to wrap up their throats while the membranes of their eyes—which are much more sensitive than any other portion of the body—are left altogether unprotected. The use of folders should be encouraged by those who ride frequently, and in all kinds of weather.

It is a mistake to wear folders of too dark a tint. A true neutral tint, an absolute grey, something between black and white, is the most proper and most useful to wear, because the colours of all objects can be seen through these unchanged.

The common fault among short-sighted persons is to use one pair of spectacles only for reading, working, and for distance. When this is done the eyes are strained at nearly all distances; they have difficulty in focussing on near objects because the spectacles are too strong; while there is difficulty in focussing on distant objects because the lenses are too weak. In many cases short-sighted persons will only put on a pair of spectacles or folders when they actually require them to enable them to see at a distance at all.

When riding, spectacles or folders should be worn, not down on the nose as in reading, but well up in front of the eyes, taking care, however, that the glasses do not touch the eyelashes.

Various objections have been urged against riding in spectacles, but I have only been able to find one practical

objection—that is, rain will cling to the glasses and prevent the rider from seeing clearly. Yet I have often ridden in folders through rain, and I know many others who do so. Short-sighted riders would, I believe, always feel safer with their spectacles on than without them; and though I am not short-sighted myself, I find it pleasanter to catch the rain on the lenses of my folders, than to let it drive into my eyes.

COMPLAINTS OF THE EYE.

It is not my province to treat of diseases of the eye, but a few words on the subject may be both interesting and under some circumstances useful, as they may enable persons to distinguish between bad sight produced by disease and defective vision caused only by the use of improper lenses, or by the want of spectacles.

SQUINTING.

When a cast is visible in the eye of a young child an oculist or skilful ophthalmic optician should at once be consulted, as in most cases the unsightly defect may, if taken in hand immediately, be cured without an operation, by simply wearing a pair of spectacles suitably adapted to the case for a few months.

CATARACT.

This distressing complaint is caused by the crystalline lens of the eye becoming opaque, like white china. The effect is to offer a mechanical obstruction to the sight. Fortunately the complaint is curable by the operation of removing the crystalline lens. My advice has been for many years *never to have one eye operated on while there is fairly good vision left with the other*. Where the sufferer from cataract is at the same time short-sighted the optician can be of very little service: but where the cataract comes on

in advancing years and is accompanied by presbyopia, or old-sight, the optician may afford so much relief that the operation may be almost indefinitely postponed, or altogether avoided.

It is a popular mistake to suppose that every one who has cataract must, unless operated on, go blind. I have many correspondents who have suffered from cataract for years without becoming appreciably worse.

GLAUCOMA.

In this affection of the eye the patient has only a limited field of vision—a few lines, or in extreme cases only a few words, will be visible in the page of print. This is a grave complaint, as unless attended to it may run on to blindness. Immediate attention should be obtained from a skillful surgeon-oculist.

HAY FEVER.

I have frequently found some of the most distressing symptoms of hay fever greatly relieved by wearing a pair of moderately dark neutral-tinted folders, whenever the sufferer is in a strong light. The involuntary weeping ceases, and the sneezing is mitigated, while the headache disappears. Bright light, to a sufferer from hay fever, appears to act as an irritant to the eyes, as pepper would to the eyes of a strong person in good health.

ON THE RAPID INCREASE OF SHORT-SIGHT AND OTHER FORMS OF DEFECTIVE VISION.

The attention I have, for many years, given to subjects connected with vision has made me acquainted with the fact generally that short-sight is alarmingly on the increase.

Short-sight is hereditary, and is transmitted from parents to their children, and in this connection I may say that I have supplied spectacles to four generations of one family,

for short-sight, within a few weeks, while for three generations I have many times supplied them. The evidence of transmission is in such cases undeniable. But, besides those cases which are thus unfortunately and inevitably increasing, we are manufacturing short-sighted people on a wholesale scale.

Some seventy years since, in three regiments of Guards, tested for defective vision, short-sight was almost entirely unknown; and only last year, an examination of the children of a Board School in South London showed that more than one-fourth of the children had defective vision, and one in each ten was short-sighted.

In every other respect but that of vision our race is improving. The stature of our men is increasing, and our athletes even out-do the picked men of savage races, and even the feats that were performed in rowing, running, and swimming, by their forefathers a few years ago, but few of them could bear any comparison with a savage as regards keenness of vision at a distance.

The late Dr. Mann stated that Mr. Francis Cobb recollected an instance, when he was in Africa, of a friend directing attention to a small speck that he saw at a great distance, which he thought was moving. On pointing this out to some natives who were with them, they at once pronounced it to be the missionary, who was on foot, and his wife, who was on horseback, and mentioned who they were. Having obtained a good binocular, Mr. Cobb was able to see that the natives were correct—that there were two persons—but he could not, even with the binocular, tell one was riding, nor who they were.

HOW TO DIMINISH SHORT-SIGHT.

Short-sight is due to two causes:—concentrating our attention almost exclusively on near objects—as in reading, drawing, needlework, etc.; and never using our eyes for

any length of time in examining objects at a distance. Small-type school-books are most destructive of the sight, especially for very young children.

To prevent the rapid increase of short-sight, school-books should be printed in large type, and the earliest books should be in very large type, of the size used in printing the texts hung in the waiting-rooms at railway stations.

Lessons should be given on the blackboard, and pupils should be encouraged to describe objects at a distance.

Parents should choose for their children who show a tendency to short-sightedness out-door occupations and amusements.

Prizes should be given to those who can accurately describe objects with which they are unacquainted, at the greatest distance.

It would be difficult to overrate the value of this subject and its treatment. People who are short-sighted cannot observe natural objects at a distance; their attention is confined to their immediate surroundings. They must, therefore, be deficient in many kinds of knowledge compared with those who are more favourably circumstanced as regards vision.

It is not possible, without risking great injury to their eyesight, to give short-sighted persons quite the same clear vision for a distance that is enjoyed by persons who have normal vision, and *all those persons who are very short-sighted are on the threshold of disease of the eye.*

It cannot be too well understood that short-sight, when it is not inherited, is produced by looking intently and continuously at *near* objects. Many persons pass their lives without looking for any length of time at objects a hundred yards off from them.

The obvious remedy is to exercise the eyes by looking frequently at objects which are at a considerable distance.

The extent to which short-sighted persons go on increasing their calamity is almost beyond belief. A great number

of them wear only a single pair of spectacles, with which they cannot see well either near or distant objects, instead of having one pair of spectacles to read with and another for walking in, that is, for general out-door use, as they should have. Others, again, content with the fact that they can see any object plainly if they hold it within five or six inches from the face, never wear any kind of glasses, but hold up occasionally a single eye-glass or pair of spring-folders, far too strong for them, when they require to see any distance. Such a course of proceeding is usually attended with disastrous results to the eyesight. I have known of two cases recently of persons who have acted in this manner, who have almost totally destroyed their vision.

As an example of the manner in which short-sight is frequently dealt with, I may name a case, by no means a solitary one.

A gentleman came to me suffering from inflammation in the eyes—he could scarcely look at me—he was wearing short-sighted spectacles. I applied a simple test, and found that he required barely three dioptries to correct his short sight. On testing the spectacles that he was wearing when he came in, I found them to be of the power of over four dioptries. I asked him where he got them from. He mentioned the name of an optician in one of the leading London thoroughfares. “How did he test your eyes?” I inquired. The reply was: “He gave me a trayful of spectacles, and told me to put them on one after the other until I could see the ironwork of the weathercock on the spire of a church at a long distance, probably about a quarter of a mile off; and when I had found a pair with which I could do this, he told me they would suit me, and I was to wear them constantly.”

Now, short of putting this gentleman's eyes out with hot irons, it would have been difficult for the optician to do anything more likely to deprive him of sight.

It really appears almost impossible to combat the erroneous notion that short-sight is strong sight, although the simplest observation of cases around us would show any observing person that short-sight is nearly always weak sight; at any rate it is obvious that it is thoroughly unnatural sight, for short-sight will not even "guard its master against a post," while the proper use of the eyes is to enable us to see objects as far off from us as possible.

It would require more space than I have at my disposal to indicate the incalculable mischief done in cases of short-sight by persons who know next to nothing about their own eyes purchasing spectacles from those who know still less. Unfortunately, there are few opticians indeed who are competent to assist the vision in cases of short-sight. Until they understand both the eye and optics better, and give their advice as a surgeon or physician would, with a single-minded desire to preserve the eyesight of those who apply to them for assistance, without regard to the profit that can be made by selling their spectacles, defective vision must increase.



INDEX.

- ACHROMATIC telescope, how to use, 25
 Analyzing colours, 23
 Aqueous or vitreous humour, 17
 Arab proverb, 15
 Art of seeing, the, 15
 Artists, why many over-colour their pictures, 23
 Artists' frames, 41, 42
 Astigmatism defined, 76; how to correct it, 76-80; irregular form of, 81
 Astronomers look for minute stars or faint objects *sideways*, 19
- BARTLETT, Rev. Lionel, extract from a letter to the author, 79, 80
 Bed, how to be placed by persons with weak eyes, 29
 Berlin wool, experiment with skeins of, to test sense of colour, 21
 Billiard-players understand the advantages of top-lighting, 28
 Blood distinguishable by use of a miniature spectroscope from other liquids similar in colour, 23, 24
 Blue glasses the best and most beneficial, 32, 33
 Blue, its effect on grey, 22
 "Bradshaw-blind," apt designation of a correspondent, 36
 Brazilian pebbles, 50
- CANE window-blinds preferable to wiregauze, 31
 Cannon-street murder, a man wrongly arrested on suspicion, 23; proves an *alibi* and explains that the supposed blood-spots on his clothes were *red shellac* varnish, 24
 Carter, Mr. Brudenell, his book on "Good and Bad Sight" quoted, 59
 Cases for spectacles, 98
 Cataract, 106
 Charing Cross Railway Station, height of the clock at, 43
 Childbirth, its temporary effect on the sight in women, 54
 Children's eyes, care of, 31, 32
 Choroid coat, the, 17
 Ciliary muscle, the, 17; a ring of muscular fibre, 17
 Cold tea recommended for sluicing or bathing the eyes when slightly inflamed, 31
 Cold water, sluicing the eyes with, 31
 Colour, a sensation in the brain caused by light, 20
 Colour-blindness, 20; tests for, 21
 Coloured glasses, use of, 32-34
 Complaints of the eye, 106
 Complementary colours, 21
 Cornea, the, or central portion of the eye, 16; condition of cylindricity in (see also *Astigmatism*), 76, 81
 Crystalline lens, popularly supposed to be the pupil of the eye, 16, 17
 Crystals used for spectacle lenses, 50-52; should be tested by the polariscope, 50
- DAVIES, Mr. G., author of "Practical Microscopy," on the danger of using the microscope in a vertical position, 25
 Diagram of the eye, 17
 Dioptric system of indicating the power of lenses, 56
 Drawings and photographs compared, 15, 16
- EYE, description of the, 16, 17; believed to take a photograph of objects looked at intently, 19; complaints of, 106
 Eyeball, the, 17
 Eye-glass, single, to be avoided, 43; should be confined to those who are blind with one eye, 99
 Eye-sight, how to preserve, 24
 Eyes, general care of the, 30; should be kept cool, 31; inflammation of, 103; care of, when riding, driving, or cycling, 104
- FIRELIGHT, danger of reading by, 29
 Focussing power, deficiency or absence of, 37
 Folders and spectacles compared, 81-83; how to put on, 96, 97

Folders, a new form of, 83
 Franklin's spectacles, 94

GASSIOT, M., his *carte-blanche* commission to the author for a powerful and perfect spectroscope, 59
Gentleman's Magazine quoted, 26
 Glaucoma, 107
 Gold spectacles, why best, 98
 Gorham, Mr., inventor of colour-top, 22; diagrams by, *ib.*
 Goulard water, 31, 93
 Green, its effect on grey, 22

HAVILAND, Dr. Alfred, practical suggestion of, in regard to seaside houses, 33
 Hay fever, 107
 Hypermetropia, or long-sight, 61

INFANTS' and children's eyes, care of, 31, 32
 Inflammation of the eyes, how to relieve, 31, 103
 Invisible spectacles, 99
 Iris, or coloured portion of the eye, 16

KEYHOLE of a door compared to pupil of the eye, 17
Knowledge, correspondence in, 50

LADIES' veils, when too thick, injurious to the sight, 31
 Lamp, the best for reading, 26
 Lamplight, reading by, 25-30
 Landscape, a photograph of, 15
 Large and small type, 30
 Lenses, 50, 51, 56, 57, 59, 60; how to keep clean, 98
 Lettsom, Mr. W. G., specimens of crystal communicated by, 51, 52
 Light, a few words about, 20; the cause of colour, *ib.*
 "London smoke," or neutral-tint glasses, the pleasantest to wear, 32, 33
 Long-sight, 54, 61
 Low-class spectacles, defect of, 92, 93

MICROSCOPES, power of, 16; habit of using, 24; how to fix, when using, 24
 Muscle, ciliary, 17; a ring of muscular fibre, 17
 Myopia, or short-sight, produced by reading in an imperfect light, 32, 62-68

NEEDLEWORK, dark, should not be done by artificial light, 30
 Newtonian reflecting telescope, its superiority to the achromatic telescope, 25

OCULISTS, 16
 Old-sight, 53-55
 Optician, art of the, 16
 Opticians, numbers of their lenses unsystematic and misleading, 56

Optometer, 49; the only good test for unequal vision, 87

PANTASCOIC frames, 41
 Pebble lenses, 59
 Pepper's Ghost, 19
 Periscopic lenses not good, 56, 57
 Photograph of a landscape, 15; of a statue, 15; more solid than a drawing, *ib.*; taken by the eye when looking at an object intently, 19
 Presbyopia, or old-sight, 53-55
 Pulpit frames, 41
 Pupil of the eye, 16; an opening which admits light into the crystalline lens, 16

QUACKERY in spectacles, practised by *sol-disant* opticians, 35, 45
 Quartz, 50, 59

RABBITS, experiment on the retina of, 19
 Reading by lamplight, 25-30; by fire-light, 29; in bed, *ib.*; in railway carriages, 30; best distance for, 36, 55
 Red, its effect on grey, 22
 Retina, the, 17, 19; a portion of, not sensitive to light, 19; duration of impressions on, *ib.*; danger of forming a permanent image on, 25
 Riding, driving, or cycling, care of eyes when, 104-106

SCHOOLROOMS often deficiently lighted, 32
 Seaside glare should be moderated by using coloured-glass spectacles, 33
 Shapes of spectacle-frames, 42
 Shellac varnish, red, its resemblance in colour to blood, 24; used by a hat-maker, *ib.*
 Short-sight, how produced, 32, 62-68; on the rapid increase of, 107-111
 Shot-proof spectacles, 52, 53
 Sight varies with health, 54; how to test the, 70-76
 Small type in books to be avoided, 30
 Spectacle-cases, the best sort, 98
 Spectacle quacks, 35, 45
 Spectacles, recent great improvements in, 16; use of coloured, 32-34; when required, 34-36; a luxury, not a nuisance, to those who need them, 36; how to wear, 37, 60, 61, 65, 66; how to use for reading, 37; should fit the face, 38; width of, 38-41; various forms of, 41; and folders, compared, 81-83; with inaccurate lenses, 92, 94; how to put on, 96, 97; the care of, 97, 98
 Spectroscope, the, 16; description of one contrived by the author, 21, 23, 24
 Spirit-lamp, experiment with, on colours, 20

- Squinting, cure of, 94, 106
 Stained glass, colours of, 22
 Statue, a good photograph of, 15
 Stevenson, Mr., of the Royal Microscopical Society, 89
- TEA, cold, recommended for bathing the eyes to relieve slight inflammation, 31
 Telescopes, power of, 16; habit of using, 25; reflecting and achromatic compared, 25
 Tepid water, for sluicing inflamed eyes, 31
 Test letters for astigmatism, 76, 77
 Test types, 32, 68-70
 Tinted writing-paper beneficial to the eyes, 30; what colours should be chosen, *ib.*
 Trees, why they are green, 20
 Turner, Joseph Mallord William, anecdote of, 15
 Type-writer, use of, recommended to persons with impaired vision, 30, 31
- UNEQUAL vision, 87-91
- VARNISH, red shellac, its resemblance in colour to blood, 24; used by a hat-maker, *ib.*
 Veils, thick, injurious to the sight, 31
 Violet glasses, 33
 Vitreous or aqueous humour, 17
- WALKING, spectacles for, 65, 66
 Water, cold or tepid, for sluicing the eyes, 31
 Williams, Mr. Mattieu, article by, in the *Gentleman's Magazine*, quoted, 26-28
 Window-blinds, light cane preferable to wire-gauze, 31
 Wire-gauze window-blinds ugly, dusty, and injurious to the sight, 31
 Writing-paper, tinted, 30
- YELLOW, its effect on grey, 22
 Yellow light, its effect on bright colours, 20

THE END.





BROWNING'S NEW METHOD

OF

Suiting Residents in the Country with Spectacles or Folders
by Correspondence.

FULL PARTICULARS SENT POST FREE.

JOHN BROWNING,

*Optical and Physical Instrument Maker to Her
Majesty's Government,*

35, Alfred Place West, South Kensington, S.W.,
and 63, Strand, London, W.C.

Testimonials.

*Extracts from Letters received from Country Residents who have been
suited with Spectacles by Browning's New Method.*

Uxbridge, 2/6/88.

Dr. G.—presents his compliments to Messrs. BROWNING, and begs to say the Folders have come to hand safely, and are very satisfactory.

Darlington, July 19, 1888.

DEAR SIR,—I beg to acknowledge safe arrival of Spectacles. They prove themselves everything I could desire, and I am deeply indebted to you for the trouble you have taken in suiting me.

Yours truly, (signed) H. G. E.

Glasgow, July 12, 1888.

DEAR SIR,—I enclose postal orders for 25s., the balance due for Gold Folders received yesterday. I have to thank you for your prompt attention, and have much pleasure in informing you that Mrs. M— says she is delighted with them. They fit admirably, and give her a range of vision such as she has not had for years.

Yours truly, (signed) J. C. M.

Bournemouth, August 23, 1888.

DEAR SIR,—I am very much obliged for your prompt attention, and also for the Spectacles, which duly arrived yesterday. They are a perfect success, and my wife finds them most soft and comfortable to the vision, and will not fail to recommend every one we know, whose sight requires attention, to place themselves in your hands.

Yours faithfully, (signed) G. J., Colonel.

Taunton, September 25, 1888.

DEAR SIR,—After giving the Glasses you made me a somewhat protracted trial in various lights and under a variety of circumstances, I am very glad to be able to give you the most satisfactory account of them. The pair for reading and writing enable me to do both with great comfort, while those for out-door work enable me to perceive objects with far greater distinctness, and therefore answer the purpose entirely.

Very faithfully yours, (signed) C. W. N. C.

Shardlow, October 28, 1888.

Mrs. Z. S. begs to acknowledge the receipt of her Spectacles, which in every way suit her, and are superior to any glasses she has ever had before.

TESTIMONIALS—continued.

Cleveland House, Hartburn, near Stockton-on-Tees,

August 20, 1886.

DEAR SIR,—For the last ten or twelve years my eyesight has failed me very much ; during that time I bought six pairs of spectacles which proved of very little use to me, for my eyes got weaker. Six months ago, I bought two pair of spectacles from you ; before buying them I could not read a newspaper with the spectacles I had, but now I am able to read the moderate-size print without them.

Yours faithfully, (signed) HENRY SMITH.

JOHN BROWNING, Esq., 63, Strand, W.C.

From W. D. MASON, Chemist, to Mr. J. BROWNING, London.

253, Cleethorpe Road, Grimsby, September 27, 1886.

DEAR SIR,—I thought perhaps you might wish to know how I liked the gold spectacles. They are simply perfect. In no particular could I desire any improvement. The pebbles are the clearest and most highly polished I have met with, and quite free from the slightest flaw or imperfection of any kind, besides being properly axis-cut. The unequal foci of the two lenses are exactly as ordered, and suit my eyes to a nicety. I can wear them for any length of time with comfort, and, except for the great improvement of vision, could forget I had them on. With thanks for the pains you have taken to fulfil all my requirements.

I am, dear sir, yours truly, (signed) W. D. MASON.

Denmark Cottages, West Hill, Bournemouth, October 7, 1886.

DEAR SIR,—It is with pleasure I again write to say I am still seeing better, with less fatigue and pain, *but worse without the spectacles*. One morning I put them off whilst indoors, and was suddenly called away ; but by the time I reached the shop, about ten minutes' walk, I had got a very bad headache, and I had to send back for them, and felt relieved immediately on putting them on, and so proving the benefit.

Thanking you for your attention so kindly given to me and my case,

I beg to remain, respectfully yours, (signed) J. T. VANNER.

J. BROWNING, Esq.

The Eyes of Unequal Focus—a very difficult case.

Belfast, August 18, 1882.

SIR,—I received the Glasses to-day, and have great pleasure in informing you that they suit perfectly.

I am, yours respectfully, (signed) W. M. V.

Bury, Lancashire, November 10, 1882.

DEAR SIR,—Herewith I hand you 5s. 4d. balance of account as per enclosed invoice. No. 16 Glasses suit me very well. I am extremely obliged for the trouble you have taken in suiting me, and as opportunity offers I shall recommend your system to my friends.

Yours faithfully, (signed) F. C.

Mr. JOHN BROWNING.

Penzance, November 27, 1882.

DEAR SIR,—I herewith enclose 6d. balance of Spectacles. Allow me to tender you my grateful thanks for your kind attention, and for the nice cool and soft effect of the Spectacles.

I am, sir, yours truly, (signed) S. M.

JOHN BROWNING, Esq., 63, Strand, London.

From a Physician.

Tredegar, December 20, 1882.

SIR,—The Folders have reached me safely, and suit my patient exceedingly well.

Yours truly, (signed) G. B.

Mr. J. BROWNING, 63, Strand, W. C.

Bedford, February 20, 1883.

DEAR SIR,—Many thanks for the speedy return of Spectacles and the trouble you have taken over them, they are so delightfully cool to the eyes. I have pleasure in enclosing P.O.O. to amount of a/c.

Yours faithfully, (signed) C. S. A.

Mr. J. BROWNING.

Padstow, March 8, 1883.

SIR,—The box containing the Folders safely to hand, with which I am very much pleased ; they suit me splendidly. I am, yours very respectfully, (signed) L. W.

To Mr. BROWNING.

TESTIMONIALS—continued.

To J. BROWNING, Esq.

Walsall, *May 28, 1883.*

DEAR SIR,—The Spectacles fitted with pebbles cut at right angles to the axis, which you have made for me, suit me admirably. Your method of ascertaining what kind of Spectacles the eye requires is at once ingenious and effective. Accept my thanks. I enclose cheque for the amount of bill.

Yours faithfully, (signed) WM. C.

Folkestone, *June 6, 1883.*

DEAR SIR,—It affords me much pleasure to inform you that the Spectacles with which you supplied both my wife and self in April last have given us *perfect* satisfaction; they are light, cool, and clear, and, although used every night, have in no measure given fatigue or pained the eye.

I am, yours faithfully, (signed) G. E. T.

JOHN BROWNING, Esq., London,

Dinnet, Aberdeen, *June 22, 1883.*

DEAR SIR,—The Spectacles are safely to hand, and are a perfect success; not the faintest difference is detectable between the vision of the two eyes; the frames please me much, as they have what all frames should have, a fair strength in arms and bridge. Thanking you very much for your patient kindness,

I remain, very truly yours, (signed) G. D.

J. BROWNING, Esq., 63, Strand, W.C.

Southend, *April 27, 1883.*

DEAR SIR,—Herewith I return Eyeglasses. The Spectacles having arrived, they give me much pleasure and relief. Thanking you for prompt attention,

I remain, yours faithfully, (signed) G. L., F. M. Soc.

Stoke-on-Trent, *October 6, 1883.*

DEAR SIR,—I enclose balance due on account of Spectacles. Mrs. P. is delighted with those you have supplied her with, and begs me to thank you for the trouble you have taken.

I am, etc., (signed) F. W. P.

Mr. J. BROWNING.

47, Sloane St., S. W., *January 13th.*

LORD GERALD FITZGERALD begs to thank Mr. BROWNING for the Spectacles, which answer perfectly.

J. BROWNING, Esq.,

Newport, Fife, *March 12, 1884.*

DEAR SIR,—I have received my Spectacles, which are very suitable. I have never seen so well with any spectacles I ever had before, and I have worn spectacles for nearly 35 years.

Yours faithfully, (signed) D. B.

A very difficult case—Extreme Myopia.

Urmston, near Manchester, *June 3, 1884.*

DEAR SIR,—Spectacles for Mrs. S. safely to hand. We are delighted with them. Please find enclosed 15s. 6d. to balance a/c.

Yours truly, (signed) WM. S.

JOHN BROWNING, Esq., London.

Watford, *July 28, 1884.*

DEAR SIR,—I have great pleasure in adding another testimonial to your profound skill as an optician. The Glasses with which you have supplied me have opened a new world to me.

Yours gratefully, (signed) J. W.

New Malden, *October 18, 1884.*

DEAR SIR,—I am sure you will be pleased to hear that I am in every way pleased with your Spectacles. After a day or two's wear I found them so perfectly easy, I did not like to take them off. I may add I have tried six or eight pairs before, and never found any to suit me so well.

Yours truly, (signed) F. C. F.

Crouch Hill, N., *January 18, 1884.*

DEAR SIR,—I am glad to be able to tell you that the Spectacles suit me admirably, and I am very pleased with them; in fact, I do not see how they could be improved in any way.

Yours faithfully, (signed) C. M.

Mr. BROWNING.

Cambridge, *January, 31, 1884.*

DEAR SIR,—I have received safely the Spectacles, which give me the greatest pleasure and relief. In case of accident, I should like to have another pair exactly similar.

Yours truly, (signed) A. H. C.

TESTIMONIALS—continued.

Forth, by Lanark, *January 31, 1884.*

DEAR SIR,—I received the discharged a/c for Spectacles and Folders, and have to acknowledge the patience and courtesy with which you have so perfectly suited my unequal eyes. I am, dear sir, yours faithfully, (signed) WM. SEMPLE MUIR.

Piccadilly, *December, 1884.*

MY DEAR SIR,—Now that I have had some days' experience of the Spectacles, I feel I must write and say how well they suit my eyes—already they have improved the left eye—and how much obliged I am for the pains you have taken in the matter.

Yours very truly, (signed) F. J. H.

J. BROWNING, Esq.

Podamur, Madras, *January 20, 1885.*

DEAR SIR,—Your letter and Folders arrived safely on the 16th. They suit and fit me to perfection. I beg to thank you very much for the trouble you have taken.

I am, yours faithfully, (signed) G. R. B.

Bolton, *February 10, 1885.*

DEAR SIR,—Enclosed P.O.O. for £2, balance for the Glasses. For the first time in my life, I enjoy wearing them. They are so clear and so cool that to read is a pleasure.

Yours truly, (signed) J. J. W.

Malvern, *March 3, 1885.*

DEAR SIR,—I enclose 15s., and beg to thank you for the admirable way you have suited my sight. I have never previously worn Glasses with so much comfort.

Yours very truly, (signed) W. H. M.

Port Elizabeth, Algoa Bay, *October 12, 1885.*

DEAR SIR,—Packet of Spectacles to hand. I thank you for the same: as regards clearness and distinctness of vision combined with comfort, they are beyond my expectations.

My brother is equally satisfied with his Glasses.

I remain, dear sir, yours faithfully, (signed) N. Mc. D.

J. BROWNING.

Southend, Essex, *December 10, 1885.*

DEAR SIR,—I have to acknowledge safe arrival of Spectacles to replace others supplied by you two years ago, and am pleased to learn that I can obtain duplicates so easily by your system of registration, more especially as I suffer from unequal vision, and require glasses specially fitted.

Yours faithfully, (signed) G. L.

J. BROWNING, Esq., 63, Strand.

Ilfracombe, *January 21, 1886.*

SIR,—I beg to acknowledge the receipt of Spectacles. I used them last night, and was charmed to find with what ease and comfort they enabled me to read, particularly as I have in vain tried for the last year or two to get Spectacles to suit me.

Yours truly, (signed) M. G.

Highbury New Park, London, N., *February 11, 1886.*

DEAR SIR,—You will be pleased to know that the Spectacles you made for me have entirely taken away from my eyes the very painful sensations which I had endured constantly for years and which got gradually but distressingly worse. I thank you very much.

Yours truly, (signed) M. H.

Mr. BROWNING, 63, Strand.

To Mr. J. BROWNING.

Addiscombe, Croydon, *June 2, 1886.*

DEAR SIR,—I think it is due to you, and also satisfactory to know, that since I have worn your Glasses, my sight has improved (as you suggested it would), and also my headaches are not so severe.

Yours very truly, (signed) H. A.

The Originals of the above Testimonials can be seen on application.

JOHN BROWNING,

35, Alfred Place West, South Kensington, S.W.,
and 63, Strand, London, W.C.

LIST OF PRICES OF SPECTACLES

SUPPLIED BY

JOHN BROWNING.

	Per pair.	
	s.	d.
Superior light Amber Steel Spectacles, with Best Glass Lenses	10	0
Superior light Amber Steel Spectacles, with Pebble Lenses	15	0
Best Amber Steel Spectacles, with best Axis-cut Brazilian Pebble Lenses	21	0
Best Invisible Steel Spectacles, with Hook or Curled Sides, Grooved Lenses for the frame to fit into, thereby giving them a very light appearance	15	0
Gold Spectacles according to weight and quality, from 18s. 6d. to 70	0	
Superior light Steel Spectacles, with Plane, Concave, or Convex Lenses of Coloured Glass for protecting the eyes from strong light	10	6
Best extra light Steel Spectacles fitted as above	15	0
Best Steel Spectacles, with Globular Glasses, Smoke or Blue Tinted	10	6
Best Steel Spectacles, with Wire or Silk Gauze Sides, as used in India and Egypt	15	0
Best Steel Spectacles, Tinted, D-shaped Eyes, with Glass Sides	10	0

The above prices are for Spectacles and Folders made by my own workmen on the premises, and under my own personal supervision.

. In cases of peculiar vision, such as myopic or presbyopic astigmatism, the spectacles or folders may be a little higher in price, according to the difficulty of making the special lenses required and fitting them up.

Cases in every instance are included in the price.

Turnpin or Double Sides, 2s. extra.

Hook or Curled Sides, 2s. 6d. extra.

For prices of Spring Folders, see next page.

JOHN BROWNING,

35, Alfred Place West, South Kensington, S.W.,
and 63, Strand, London, W.C.

PRICES OF SPRING FOLDERS.

	Per pair.
	<i>s. d.</i>
Best light Amber Steel Frames, with Glass Lenses	10 6
Best light Steel Frames, Nickelized to prevent rusting, and fitted with best Axis-cut Brazilian Pebble Lenses, the most perfect that can be made	21 0
Superior Folders, with light Steel Frames and Plane, Concave, or Convex Lenses of Coloured Glass, for protecting the eyes against strong light	10 6
Gold Folders, according to weight and quality, from 18s. 6d. to 70	0

Browning's best Axis-cut Brazilian Pebbles fitted to any of the above Spectacles or Folders, where not already mentioned, 10s. extra.

CASES IN EVERY INSTANCE ARE INCLUDED IN THE PRICE.

The above prices do not apply to special cases of peculiar vision, for which lenses have to be expressly worked to suit the eyes.

Very fine strong Silver Chain Guards for wearing Folders, instead of cords, 5s. 6d.

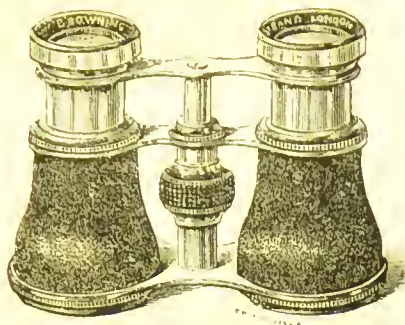
Fine Gold Guards for wearing Folders, 15s. 6d.

JOHN BROWNING,

Optical and Physical Instrument Maker to Her Majesty's Government, the Royal Society, the Royal Observatories of Greenwich, Edinburgh, etc., etc.,

35, Alfred Place West, South Kensington, S.W.,
and 63, Strand, London, W.C.

BROWNING'S BINOCULARS.



THE "OPERA" BINOCULAR GLASS.

This glass is the cheapest Binocular ever offered to the public. It is strongly made and highly finished, the whole of the metal-work is *nickelized*, the achromatic object-glasses are $1\frac{1}{2}$ inches clear aperture, the body is covered with morocco, and the instrument is sent in a collapsible French morocco case lined with satin. *Price complete, 15s.*



THE "ECONOMICAL" FIELD GLASS.

This Binocular has achromatic object-glasses $1\frac{1}{2}$ inches diameter, and sliding shades to shelter the object-glasses from sun or rain, and is fitted in a solid leather sling case. *Price £1 5s.*

Illustrated Catalogue of Binoculars sent free.

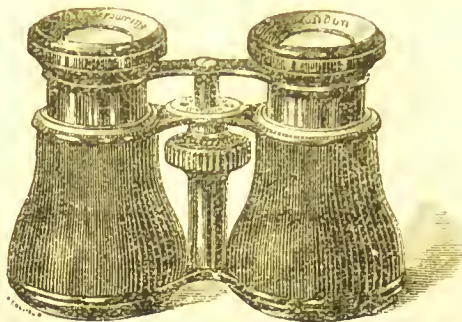
JOHN BROWNING,

35, Alfred Place West, South Kensington, S.W.,
and 63, Strand, London, W.C.

BROWNING'S BINOCULARS.

THE "EURYSCOPIC" BINOCULAR

Has the
largest
possible
field of



view,
giving
delightfully
easy vision.

In case, £2 2s. ; sent free.

Testimonials.

Birmingham, *August 15, 1883.*

DEAR SIR,—Just a word respecting the Binocular you supplied me with a short time since. I must say how pleased I am with it. It is really a beautiful instrument, and comes into focus something like a good telescope, quite sharp. The way it shows distant objects is something wonderful. What surprised me most was to see trees and hedges upon the horizon, which to the naked eye looked like clouds.

MR. J. BROWNING.

Yours truly, J. W.

Spalding, *December 16, 1882.*

DEAR SIR,—I am happy to apprise you that the Binocular Glass which you supplied to me in July last was used by me on board the *Gallia* (Cunard Line), on which were more than 350 cabin passengers, in our trip to the United States, and for more than 20,000 miles altogether, including my return voyage by the *British Crown* (Red Star Line), and that it was so much approved that many persons begged the loan of it, preferring it for its commanding greater clearness of vision than their own glasses, some of which cost ten times as much money.

I am, dear Sir, yours faithfully, H. WATKINSON.

MR. J. BROWNING, 63, Strand, London.

Illustrated Catalogue of Binoculars post free.

JOHN BROWNING,

35, Alfred Place West, South Kensington, S.W.,
and 63, Strand, London, W.C.

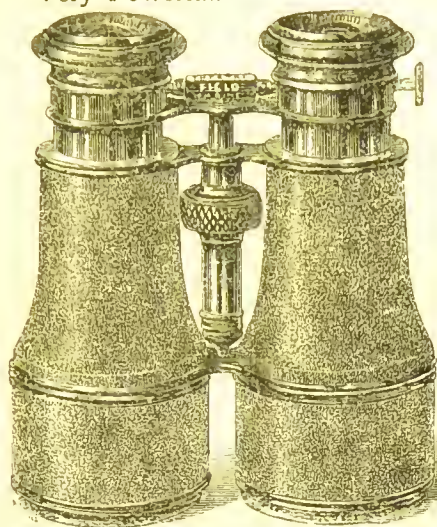
THE NEW THREE-POWER GLASS.

Very Powerful.

By turning a stud, the eye-pieces are made changeable at pleasure, so that the glass becomes suitable for either theatre, field, or marine purposes.

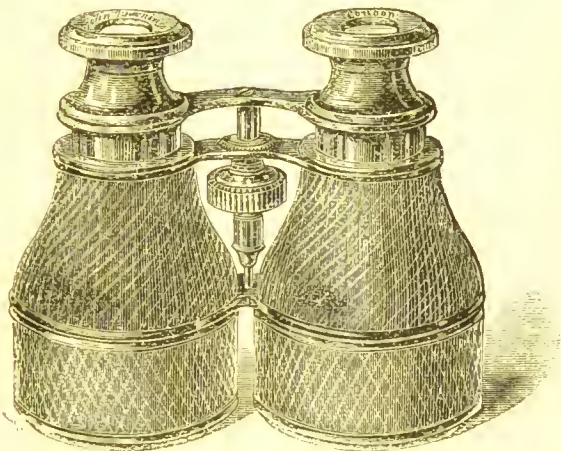
Price from £4 4s. ;
sent free.

Illustrated Catalogue of Binoculars free.



THE "PANERGETIC" OPERA, FIELD, & RACE GLASS,

"For general use, brilliant light, extensive field of view, and sharp definition.



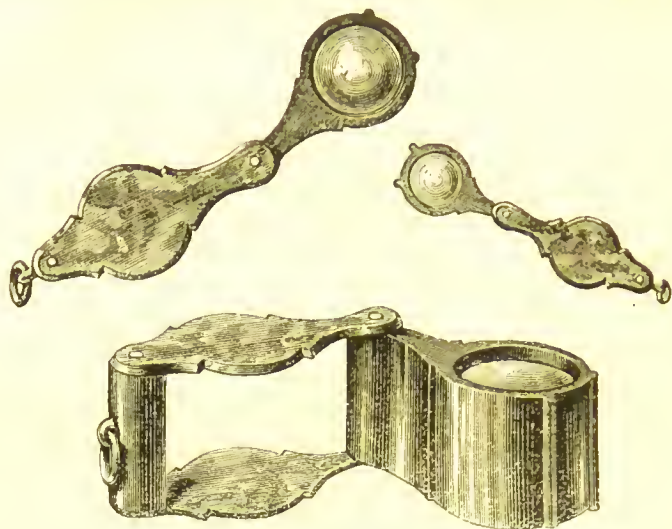
"Brings out figures with marvellous distinctness, and has a very large field of view and so many advantages over the other Binoculars that we have seen, that we confidently award very high praise indeed."—*Popular Science Review*.

Price £3 10s., £4 10s., and £5 10s. *Illustrated Catalogue of Binoculars free.*

JOHN BROWNING,

35, Alfred Place West, South Kensington, S.W.,
and 63, Strand, London, W.C.

BROWNING'S PLATYSCOPIC LENS.



ENGRAVED REAL SIZE.

A NEW ACHROMATIC COMBINATION,

COMBINING THE DEFINITION OF A MICROSCOPE WITH THE PORTABILITY OF A POCKET LENS.

"If you carry a small Platyscopic Pocket Lens (which every observer of Nature ought to do)."—GRANT ALLEN, in *Knowledge*.

The Platyscopic Lens is invaluable to botanists, mineralogists, or entomologists, as it focuses about three times as far from the object as the Coddington lenses. This allows opaque objects to be examined easily.

The Platyscopic Lens is made of four degrees of power, magnifying respectively 10, 15, 20, and 30 diameters; the lowest power, having the largest field, is the best adapted for general use.

The Lenses are set in Ebonite Cells, and mounted in Tortoiseshell Frames.

Price of the Platyscopic Lens, mounted in Tortoiseshell, magnifying either 10, 15, 20, or 30 diameters, 18s. 6d. each power.

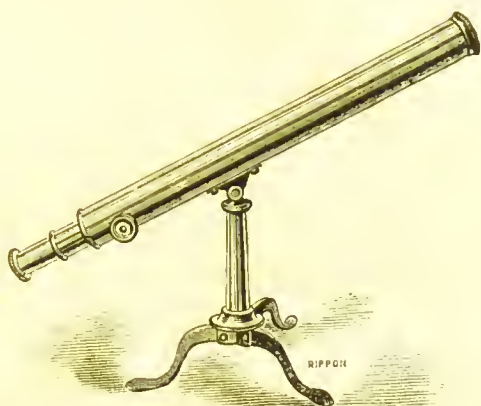
ILLUSTRATED DESCRIPTION SENT FREE.

JOHN BROWNING,

*Optical and Physical Instrument Maker to H.M. Government,
the Royal Observatories, etc., etc.*

35, Alfred Place West, South Kensington, S.W.,
and 63, Strand, London, W.C.

BROWNING'S ASTRONOMICAL TELESCOPES.



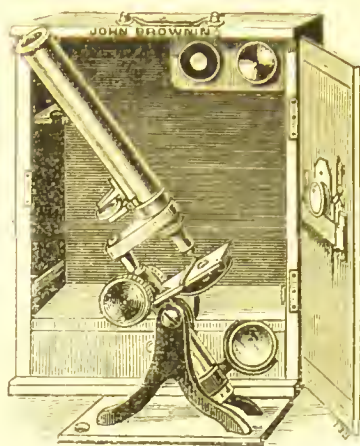
Astronomical Telescope, with 3-inch achromatic object-glass of excellent quality, bright brass body, one terrestrial and two celestial eye-pieces, in case complete, guaranteed to be capable of dividing double stars and showing Saturn's ring and Jupiter's belts. *Price* £6 10s.

Catalogue of Astronomical Telescopes sent free.

JOHN BROWNING,

35, Alfred Place West, South Kensington, S.W.,
and 63, Strand, London, W.C.

BROWNING'S MICROSCOPES.



BROWNING'S "PERFECT" MICROSCOPE.

The body is made entirely of brass and gun-metal, with rack-motion and fine screw adjustment. Three achromatic powers giving excellent definition, 1-inch, $\frac{1}{2}$ -inch, and $\frac{1}{4}$ -inch; adjusting slide-holder to stage, revolving diaphragm, hand-forceps, stage-forceps, live-cage, etc. The whole packed in upright Mahogany Cabinet, with drawers for slides, dissecting knives, etc. *Price £3 15s.*

New Illustrated Catalogue of Microscopes sent free.

JOHN BROWNING,

35, Alfred Place West, South Kensington, S.W.,
and 63, Strand, London, W.C.

[April, 1887]



A LIST OF BOOKS

PUBLISHED BY

CHATTO & WINDUS,

214, PICCADILLY, LONDON, W.

Sold by all Booksellers, or sent post-free for the published price by the Publishers.

Abbé Constantin (The). By LUDOVIC HALEVY, of the French Academy. Translated into English. With 36 Photogravure Illustrations by GOUPILO & Co., after the Drawings of Madame MADELEINE LEMAIRE. Only 250 copies of this choice book have been printed (in large quarto) for the English market, each one numbered. The price may be learned from any Bookseller.

About.—The Fella: An Egyptian Novel. By EDMOND ABOUT. Translated by Sir RANDAL ROBERTS. Post 8vo, illustrated boards, 2s.; cloth limp, 2s. 6d.

Adams (W. Davenport), Works by:

A Dictionary of the Drama. Being a comprehensive Guide to the Plays, Playwrights, Players, and Playhouses of the United Kingdom and America, from the Earliest to the Present Times. Crown 8vo, half-bound, 12s. 6d. [Preparing.]

Quips and Quiddities. Selected by W. DAVENPORT ADAMS. Post 8vo, cloth limp, 2s. 6d.

Advertising, A History of, from the Earliest Times. Illustrated by Anecdotes, Curious Specimens, and Notices of Successful Advertisers. By HENRY SAMPSON. With Coloured Frontispiece and Illustrations. Crown 8vo, cloth gilt, 7s. 6d.

Agony Column (The) of "The Times," from 1800 to 1870. Edited, with an Introduction, by ALICE CLAY. Post 8vo, cloth limp, 2s. 6d.

Aidë (Hamilton), Works by:
Post 8vo, illustrated boards, 2s. each.
Carr of Carrylon. | Confidences.

Alexander (Mrs.), Novels by:
Post 8vo, illustrated boards, 2s. each.
Maid, Wife, or Widow?
Valerie's Fate.

Allen (Grant), Works by:
Crown 8vo, cloth extra, 6s. each.
The Evolutionist at Large.
Vignettes from Nature.
Colin Clout's Calendar.

Crown 8vo, cloth extra, 6s. each; post 8vo, illustrated boards, 2s. each.

Strange Stories. With a Frontispiece by GEORGE DU MAURIER.

The Beckoning Hand. With a Frontispiece by TOWNLEY GREEN.

Crown 8vo, cloth extra, 3s. 6d. each post 8vo, illustrated boards, 2s. each.
Phyllis.
For Malmie's Sake.

Post 8vo, illustrated boards, 2s. each.

Babylon: A Romance.
In all Shades.

The Devil's Die. Crown 8vo, cloth extra, 3s. 6d.

This Mortal Coil. Three Vols., crown 8vo.

Architectural Styles, A Handbook of. Translated from the German of A. ROSENGARTEN, by W. COLLETT-SANDARS. Crown 8vo, cloth extra, with 639 Illustrations, 7s. 6d.

Arnold.—Bird Life in England. By EDWIN LESTER ARNOLD. Crown 8vo, cloth extra, 6s.

Artemus Ward.

Artemus Ward's Works: The Works of CHARLES FARRER BROWNE, better known as ARTEMUS WARD. With Portrait and Facsimile. Crown 8vo, cloth extra, 7s. 6d.

The Genial Showman: Life and Adventures of Artemus Ward. By EDWARD P. HINGSTON. With a Frontispiece. Cr. 8vo, cl. extra, 3s. 6d.

Art (The) of Amusing: A Collection of Graceful Arts, Games, Tricks, Puzzles, and Charades. By FRANK BELLEW. With 300 Illustrations. Cr. 8vo, cloth extra, 4s. 6d.

Ashton (John), Works by:

Crown 8vo, cloth extra, 7s. 6d. each.

A History of the Chap-Books of the Eighteenth Century. With nearly 400 Illustrations, engraved in facsimile of the originals.

Social Life in the Reign of Queen Anne. From Original Sources. With nearly 100 Illustrations.

Humour, Wit, and Satire of the Seventeenth Century. With nearly 100 Illustrations.

English Caricature and Satire on Napoleon the First. With 115 Illustrations.

Modern Street Ballads. With 57 Illustrations.

Bacteria.—A Synopsis of the Bacteria and Yeast Fungi and Allied Species. By W. B. GROVE, B.A. With 57 Illusts. Crown 8vo, cl. extra, 3s. 6d.

Bankers, A Handbook of London; together with Lists of Bankers from 1677. By F. G. HILTON PRICE. Crown 8vo, cloth extra, 7s. 6d.

Bardsley (Rev. C.W.), Works by: English Surnames: Their Sources and Significations. Third Edition, revised. Crown 8vo, cl. ex., 7s. 6d.

Curiosities of Puritan Nomenclature. Second Edition. Crown 8vo, cloth extra, 6s.

Beaconsfield, Lord: A Biography. By T. P. O'CONNOR, M.P. Sixth Edition, with a New Preface. Crown 8vo, cloth extra, 5s.

Beauchamp. — Grantley Grange: A Novel. By SHELLEY BEAUCHAMP. Post 8vo, illust. bds., 2s.

Beautiful Pictures by British Artists: A Gathering of Favourites from our Picture Galleries. All engraved on Steel in the highest style of Art. Edited, with Notices of the Artists, by SYDNEY ARMYTAGE, M.A. Imperial 4to, cloth extra, gilt and gilt edges 21s.

Bechstein.—As Pretty as Seven, and other German Stories. Collected by LUDWIG BECHSTEIN. With Additional Tales by the Brothers GRIMM, and 100 Illusts. by RICHTER. Small 4to, green and gold, 6s. 6d.; gilt edges, 7s. 6d.

Beerbohm.—Wanderings in Patagonia; or, Life among the Ostrich Hunters. By JULIUS BEERBOHM. With 111 Illusts. Crown 8vo, cloth extra, 3s. 6d.

Belgravia for 1889.—One Shilling Monthly.—A New Serial Story, entitled *Passion's Slave*, by RICHARD ASHE KING, Author of "The Wearing of the Green," "A Drawn Game," &c., began in the JANUARY Number, and will be continued through the year.

*. * Bound Volumes from the beginning kept in stock, cloth extra, gilt edges, 7s. 6d. each; Cases for Binding Vols., 2s. each.

Belgravia Holiday Number, published Annually in JULY; and *Belgravia Annual*, published Annually in NOVEMBER. Each Complete in itself. Demy 8vo, with Illustrations, 1s. each.

Bennett (W.C., LL.D.), Works by:

Post 8vo, cloth limp, 2s. each.

A Ballad History of England

Songs for Sailors.

Besant (Walter) and James

Rice, Novels by. Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illust. bds., 2s. each; cl. limp, 2s. 6d. each.

Ready-Money Mortiboy.

My Little Girl.

With Harp and Crown.

This Son of Vulcan.

The Golden Butterfly.

The Monks of Thelema.

By Cella's Arbour.

The Chaplain of the Fleet.

The Seamy Side.

The Case of Mr. Lucreft, &c.

'Twas in Trafalgar's Bay, &c.

The Ten Years' Tenant, &c.

Besant (Walter), Novels by:

Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illust. boards, 2s. each; cloth limp, 2s. 6d. each.

All Sorts and Conditions of Men: An Impossible Story. With Illustrations by FRED. BARNARD.

The Captains' Room, &c. With Frontispiece by E. J. WHEELER.

All in a Garden Fair. With 6 Illustrations by HARRY FURNISS.

Dorothy Forster. With Frontispiece by CHARLES GREEN.

Uncle Jack, and other Stories.

Children of Gibeon.

The World Went Very Well Then. With Illustrations by A. FORESTIER.

BESANT (WALTER), continued—

- Herr Paulus: His Rise, his Greatness, and his Fall. With a New PREFACE. Cr. 8vo, cloth extra, 3s. 6d.
 For Faith and Freedom. With Illustrations by A. FORESTIER and F. WADDY. Three Vols., crown 8vo.
 Fifty Years Ago. With 137 full-page Plates and Woodcuts. Demy 8vo, cloth extra, 16s.
 The Eulogy of Richard Jefferies. With Photograph Portrait. Cr. 8vo, cloth extra, 6s.
 The Art of Fiction. Demy 8vo, 1s.

**New Library Edition of
 Besant and Rice's Novels.**

The whole 12 Volumes, printed from new type on a large crown 8vo page, and handsomely bound in cloth, are now ready, price Six Shillings each.

1. Ready-Money Mortiboy. With Etched Portrait of JAMES RICE.
2. My Little Girl.
3. With Harp and Crown.
4. This Son of Vulcan.
5. The Golden Butterfly. With Etched Portrait of WALTER BESANT.
6. The Monks of Tholema.
7. By Celia's Arbour.
8. The Chaplain of the Fleet.
9. The Seamy Side.
10. The Case of Mr. Lucraft, &c.
11. 'Twas in Trafalgar's Bay, &c.
12. The Ten Years' Tenant, &c.

Betham-Edwards (M.), Novels:

- Felicia. Cr. 8vo, cloth extra, 3s. 6d.; post 8vo, illust. bds., 2s.
 Kitty. Post 8vo, illust. bds., 2s.

**Bewick (Thomas) and his
 Pupils. By Austin Dosson. With 95
 Illusts. Square 8vo, cloth extra, 10s. 6d.**

Birthday Books:—

- The Starry Heavens: A Poetical Birthday Book. Square 8vo, handsomely bound in cloth, 2s. 6d.
 The Lowell Birthday Book. With Illusts. Small 8vo, cloth extra, 4s. 6d.

**Blackburn's (Henry) Art Hand-
 books. Demy 8vo, Illustrated, uni-
 form in size for binding.**

- Academy Notes, separate years, from 1876 to 1888, each 1s.
 Academy Notes, 1889. With numerous Illustrations. 1s.
 Academy Notes, 1880-84 Complete in One Volume, with about 700 Facsimile Illustrations. Cloth limp, 6s.
 Academy Notes, 1885-89. Complete in One Vol., with about 600 Illustrations. Cloth limp, 7s. 6d. (*Only a few Copies for Sale.*)
 Grosvenor Notes, 1877. 6d.
 Grosvenor Notes, separate years, from 1878 to 1888, each 1s.

BLACKBURN (HENRY), continued—

- Demy 8vo, Illustrated, uniform in size for binding.
 Grosvenor Notes, 1889. With numerous Illusts. 1s.
 Grosvenor Notes, Vol. I., 1877-82. With upwards of 300 Illustrations. Demy 8vo, cloth limp, 6s.
 Grosvenor Notes, Vol. II., 1883-87. With upwards of 300 Illustrations. Demy 8vo, cloth limp, 6s.
 The New Gallery, 1888. With numerous Illustrations. 1s.
 The New Gallery, 1889. With numerous Illustrations. 1s.
 The English Pictures at the National Gallery. 174 Illustrations. 1s.
 The Old Masters at the National Gallery. 128 Illustrations. 1s. 6d.
 A Complete Illustrated Catalogue to the National Gallery. With Notes by H. BLACKBURN, and 242 Illusts. Demy 8vo, cloth limp, 3s.
 The Paris Salon, 1889. With 300 Facsimile Sketches. 3s.

**Blake (William): Etchings from
 his Works. By W. B. SCOTT. With
 descriptive Text. Folio, half-bound
 boards, India Proofs, 21s.**

Blind.—The Ascent of Man:

- A Poem. By MATHILDE BLIND. Crown 8vo, printed on hand-made paper, cloth extra, 7s.

Bourne (H. R. Fox), Works by:

- English Merchants: Memoirs in Illustration of the Progress of British Commerce. With numerous Illustrations. Cr. 8vo, cloth extra, 7s. 6d.
 English Newspapers: Chapters in the History of Journalism. Two Vols., demy 8vo, cloth extra, 25s.

Bowers (G.) Hunting Sketches:

- Oblong 4to, half-bound boards, 21s. each
 Canters in Crampshire.
 Leaves from a Hunting Journal
 Coloured in facsimile of the originals.

Boyle (Frederick), Works by:

- Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.
 Camp Notes: Stories of Sport and Adventure in Asia, Africa, America.
 Savage Life: Adventures of a Globe-Trotter.

- Chronicles of No-Man's Land
 Post 8vo, illust. boards, 2s.

**Brand's Observations on Popu-
 lar Antiquities, chiefly Illustrating
 the Origin of our Vulgar Customs,
 Ceremonies, and Superstitions. With
 the Additions of Sir HENRY ELLIS.
 Crown 8vo, with illustrations, 7s. 6d.**

Bret Harte, Works by :

Bret Harte's Collected Works. Arranged and Revised by the Author. Complete in Five Vols., crown 8vo, cloth extra, 6s. each

Vol. I. COMPLETE POETICAL AND DRAMATIC WORKS. With Steel Portrait, and Introduction by Author.

Vol. II. EARLIER PAPERS—LUCK OF ROARING CAMP, and other Sketches —BOHEMIAN PAPERS — SPANISH AND AMERICAN LEGENDS.

Vol. III. TALES OF THE ARGONAUTS —EASTERN SKETCHES.

Vol. IV. GABRIEL CONROY.

Vol. V. STORIES — CONDENSED NOVELS, &c.

The Select Works of Bret Harte, in Prose and Poetry. With Introductory Essay by J. M. BELLEW, Portrait of the Author, and 50 Illustrations. Crown 8vo, cloth extra, 7s. 6d.

Bret Harte's Complete Poetical Works. Author's Copyright Edition. Printed on hand-made paper and bound in buckram. Cr. 8vo, 4s. 6d.

Gabriel Conroy : A Novel. Post 8vo, illustrated boards, 2s.

An Hellress of Red Dog, and other Stories. Post 8vo, illust. boards, 2s.

The Twins of Table Mountain. Fcap. 8vo, picture cover, 1s.

Luck of Roaring Camp, and other Sketches. Post 8vo, illust. bds., 2s.

Jeff Briggs's Love Story. Fcap. 8vo, picture cover, 1s.

Filip. Post 8vo, illust. bds., 2s.; cl. 2s. 6d.

Californian Stories (including THE TWINS OF TABLE MOUNTAIN, JEFF BRIGGS'S LOVE STORY, &c.) Post 8vo, illustrated boards, 2s.

Maruja : A Novel. Post 8vo, illust. boards, 2s.; cloth limp, 2s. 6d.

The Queen of the Pirate Isle. With 28 original Drawings by KATE GREENAWAY. Reproduced in Colours by EDMUND EVANS. Sm. 4to, bds., 5s.

A Phyllis of the Sierras, &c. Post 8vo, illust. bds., 2s. cloth limp, 2s. 6d.

Brewer (Rev. Dr.), Works by :

The Reader's Handbook of Allusions, References, Plots, and Stories. Twelfth Thousand. With Appendix, containing a COMPLETE ENGLISH BIBLIOGRAPHY. Cr. 8vo, cloth 7s. 6d.

Authors and their Works, with the Dates: Being the Appendices to "The Reader's Handbook," separately printed. Cr. 8vo, cloth limp, 2s.

A Dictionary of Miracles: Imitative, Realistic, and Dogmatic. Crown 8vo, cloth extra 7s. 6d.

Brewster (Sir David), Works by:

More Worlds than One: The Creed of the Philosopher and the Hope of the Christian. With Plates. Post 8vo, cloth extra, 4s. 6d.

The Martyrs of Science. Lives of GALILEO, TYCHO BRAHE, and KEPLER. With Portraits. Post 8vo, cloth extra, 4s. 6d.

Letters on Natural Magic. A New Edition, with numerous Illustrations, and Chapters on the Being and Faculties of Man, and Additional Phenomena of Natural Magic, by J. A. SMITH. Post 8vo, cl. cx., 4s. 6d.

Brillat-Savarin.—Gastronomy as a Fine Art. By BRILLAT-SAVARIN. Translated by R. E. ANDERSON, M.A. Post 8vo, printed on laid-paper and half-bound, 2s.

Brydges. — Uncle Sam at Home. By HAROLD BRYDGES. Post 8vo, illust. boards, 2s.; cloth, 2s. 6d.

Buchanan's (Robert) Works :

Crown 8vo, cloth extra, 6s. each.

Ballads of Life, Love, and Humour. With a Frontispiece by ARTHUR HUGHES.

Selected Poems of Robert Buchanan. With a Frontispiece by T. DALZIEL. **The Earthquake; or, Six Days and a Sabbath.**

The City of Dream: An Epic Poem. With Two Illustr. by P. MACNAB. Second Edition.

Robert Buchanan's Complete Poetical Works. With Steel-plate Portrait. Crown 8vo, cloth extra, 7s. 6d.

Crown 8vo, cloth extra, 3s. 6d. each post 8vo, illust. boards, 2s. each.

The Shadow of the Sword.

A Child of Nature. With a Frontispiece.

God and the Man. With Illustrations by FRED. BARNARD.

The Martyrdom of Madeline. With Frontispiece by A. W. COOPER.

Love Me for Ever. With a Frontispiece by P. MACNAB.

Annan Water. | **The New Abelard.**

Foxglove Manor.

Matt: A Story of a Caravan.

The Master of the Mine.

The Hel of Linne.

Burnett (Mrs.), Novels by:

Surly Tim, and other Stories. Post 8vo, illustrated boards, 2s.

Fcap. 8vo, picture cover, 1s. each.

Kathleen Mavourneen.

Lindsay's Luck.

Pretty Polly Pemberton.

Burton (Captain).—The Book of the Sword: Being a History of the Sword and its Use in all Countries, from the Earliest Times. By RICHARD F. BURTON. With over 300 Illustrations. Square 8vo, cloth extra, 32s.

Burton (Robert):

The Anatomy of Melancholy. A New Edition, complete, corrected and enriched by Translations of the Classical Extracts. Demy 8vo, cloth extra, 7s. 6d.

Melancholy Anatomised: Being an Abridgment, for popular use, of BURTON'S ANATOMY OF MELANCHOLY. Post 8vo, cloth limp, 2s. 6d.

Byron (Lord):

Byron's Letters and Journals. With Notices of his Life. By THOMAS MOORE. Cr. 8vo, cloth extra, 7s. 6d.

Prose and Verse, Humorous, Satirical, and Sentimental, by THOMAS MOORE; with Suppressed Passages from the Memoirs of Lord Byron. Edited, with Notes and Introduction, by R. HERNE SHEPHERD. Crown 8vo, cloth extra, 7s. 6d.

Gaine (T. Hall), Novels by:

Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.

The Shadow of a Crime.

A Son of Hagar.

The Deemster: A Romance of the Isle of Man.

Cameron (Commander).—

The Cruise of the "Black Prince" Privateer. By V. LOVETT CAMERON, R.N., C.B. With Two Illustrations by P. MACNAB. Crown 8vo, cl. ex., 5s.; post 8vo, illustrated boards, 2s.

Cameron (Mrs. H. Lovett),
Novels by:

Crown 8vo, cloth extra, 3s. 6d. each
post 8vo, illustrated boards, 2s. each.

Juliet's Guardian. | Decelvers Ever.

Carlyle (Thomas):

On the Choice of Books. By THOMAS CARLYLE. With a Life of the Author by R. H. SHEPHERD. New and Revised Edition, post 8vo, cloth extra, illustrated, 1s. 6d.

The Correspondence of Thomas Carlyle and Ralph Waldo Emerson, 1834 to 1872. Edited by CHARLES ELIOT NORTON. With Portraits. Two Vols., crown 8vo, cloth extra, 24s.

Chapman's (George) Works:

Vol. I. contains the Plays complete, including the doubtful ones. Vol. II., the Poems and Minor Translations, with an Introductory Essay by ALGERNON CHARLES SWINBURNE. Vol. III., the Translations of the Iliad and Odyssey. Three Vols., crown 8vo, cloth extra, 18s.; or separately, 6s. each.

Chatto & Jackson.—A Treatise

on Wood Engraving, Historical and Practical. By WM. ANDREW CHATTO and JOHN JACKSON. With an Additional Chapter by HENRY G. BOHN; and 450 fine Illustrations. A Reprint of the last Revised Edition. Large 4to, half-bound, 28s.

Chaucer:

Chaucer for Children: A Golden Key. By Mrs. H.R. HAWES. With Eight Coloured Pictures and numerous Woodcuts by the Author. New Ed., small 4to, cloth extra, 6s.

Chaucer for Schools. By Mrs. H. R. HAWES. Demy 8vo, cloth limp, 2s. 6d.

Chronicle (The) of the Coach:

Charing Cross to Ilfracombe. By J. D. CHAMPLIN. With 75 Illustrations by EDWARD L. CHICHESTER. Square 8vo, cloth extra, 7s. 6d.

Clodd.—Myths and Dreams.

By EDWARD CLODD, F.R.A.S., Author of "The Story of Creation," &c. Crown 8vo, cloth extra, 5s.

Cobban.—The Cure of Souls:

A Story. By J. MACLAREN COBBAN. Post 8vo, illustrated boards, 2s.

Coleman (John), Works by:

Curly: An Actor's Story. Illustrated by J. C. DOLLMAN. Crown 8vo, 1s.; cloth, 1s. 6d.

Players and Playwrights I have Known. Two Vols., demy 8vo, cloth extra, 24s.

Collins (Mortimer), Novels by:

Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.

Sweet Anne Page. | Transmigration. From Midnight to Midnight.

A Flight with Fortune. Post 8vo, illustrated boards, 2s.

Collins (Mortimer & Frances),

Novels by:

Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.

Blacksmith and Scholar.

The Village Comedy.

You Play Me False.

Post 8vo, illustrated boards, 2s. each
Sweet and Twenty. | Frances.

Collins (Wilkie), Novels by :
Crown 8vo, cloth extra, 3s. 6d. each ;
post 8vo, illustrated boards, 2s. each ;
cloth limp, 2s. 6d. each.

Antonina. Illust. by Sir JOHN GILBERT.
Basil. Illustrated by Sir JOHN GILBERT and J. MAHONEY.

Hide and Seek. Illustrated by Sir JOHN GILBERT and J. MAHONEY.

The Dead Secret. Illustrated by Sir JOHN GILBERT.

Queen of Hearts. Illustrated by Sir JOHN GILBERT.

My Miscellanies. With a Steel-plate Portrait of WILKIE COLLINS.

The Woman in White. With Illustrations by Sir JOHN GILBERT and F. A. FRASER.

The Moonstone. With Illustrations by G. DU MAURIER and F. A. FRASER.

Man and Wife. Illust. by W. SMALL.

Poor Miss Finch. Illustrated by G. DU MAURIER and EDWARD HUGHES.

Miss or Mrs. P. With Illustrations by S. L. FILDES and HENRY WOODS.

The New Magdalen. Illustrated by G. DU MAURIER and C. S. REINHARDT.

The Frozen Deep. Illustrated by G. DU MAURIER and J. MAHONEY.

The Law and the Lady. Illustrated by S. L. FILDES and SYDNEY HALL.

The Two Destinies.

The Haunted Hotel. Illustrated by ARTHUR HOPKINS.

The Fallen Leaves.

Jezebel's Daughter.

The Black Robe.

Heart and Science: A Story of the Present Time.

"I Say No."

The Evil Genius.

Little Novels.

The Legacy of Cain. Three Vols., crown 8vo.

Collins (C. Allston).—The Bar Sinister: A Story. By C. ALLSTON COLLINS. Post 8vo, illustrated bds., 2s.

Colman's Humorous Works:
"Broad Grins," "My Nightgown and Slippers," and other Humorous Works, Prose and Poetical, of GEORGE COLMAN. With Life by G. B. BUCKSTONE, and Frontispiece by HOGARTH. Crown 8vo cloth extra, gilt, 7s. 6d.

Colquhoun.—Every Inch a Soldier: A Novel. By M. J. COLQUHOUN. Post 8vo, illustrated boards, 2s.

Convalescent Cookery: A Family Handbook. By CATHERINE RYAN. Crown 8vo, 1s.; cloth, 1s. 6d.

Conway (Moncure D.), Works by:

Demonology and Devil-Lore. Two Vols., royal 8vo, with 65 Illusts., 28s.

A Necklace of Stories. Illustrated by W. J. HENNESSY. Square 8vo, cloth extra, 6s.

Pine and Palm: A Novel. Cheaper Edition. Post 8vo, illustrated boards, 2s. [Shortly.]

Cook (Dutton), Novels by :

Lco. Post 8vo, illustrated boards, 2s.

Paul Foster's Daughter. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illustrated boards, 2s.

Copyright. — A Handbook of English and Foreign Copyright in Literary and Dramatic Works. By SIDNEY JERROLD. Post 8vo, cl., 2s. 6d.

Cornwall.—Popular Romances of the West of England; or, The Drolls, Traditions, and Superstitions of Old Cornwall. Collected and Edited by ROBERT HUNT, F.R.S. New and Revised Edition, with Additions, and Two Steel-plate Illustrations by GEORGE CRUIKSHANK. Crown 8vo, cloth extra, 7s. 6d.

Craddock. — The Prophet of the Great Smoky Mountains. By CHARLES EGBERT CRADDOCK. Post 8vo illust. bds., 2s. cloth limp, 2s. 6d.

Cruikshank (George):

The Comic Almanack. Complete in Two SERIES: The First from 1835 to 1843; the Second from 1844 to 1853. A Gathering of the BEST HUMOUR of THACKERAY, HOOD, MAYHEW, ALBERT SMITH, A'BECKETT, ROBERT BROUGH, &c. With 2,000 Woodcuts and Steel Engravings by CRUIKSHANK, HINE, LANDELLS, &c. Crown 8vo, cloth gilt, two very thick volumes, 7s. 6d. each.

The Life of George Cruikshank. By BLANCHARD JERROLD, Author of "The Life of Napoleon III.," &c. With 84 Illustrations. New and Cheaper Edition, enlarged, with Additional Plates, and a very carefully compiled Bibliography. Crown 8vo, cloth extra, 7s. 6d.

Cumming (C. F. Gordon), Works by:

Demy 8vo, cloth extra, 8s. 6d. each.

In the Hebrides. With Autotype Facsimile and numerous full-page Illusts.

In the Himalayas and on the Indian Plains. With numerous Illusts.

Via Cornwall to Egypt. With a Photogravure Frontispiece. Demy 8vo, cloth extra, 7s. 6d.

Cussans.—Handbook of Heraldry; with Instructions for Tracing Pedigrees and Deciphering Ancient MSS., &c. By JOHN E. CUSSANS. Entirely New and Revised Edition, illustrated with over 400 Woodcuts and Coloured Plates. Crown 8vo, cloth extra, 1s. 6d.

Cyple.—Hearts of Gold: A Novel. By WILLIAM CYPLES. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illustrated boards, 2s.

Daniel.—Merrie England in the Olden Time. By GEORGE DANIEL. With Illustrations by ROBT. CRUIKSHANK. Crown 8vo, cloth extra, 3s. 3d.

Daudet.—The Evangelist; or, Port Salvation. By ALPHONSE DAUDET. Translated by C. HARRY MELTZER. With Portrait of the Author. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illust. boards, 2s.

Davenant.—Hints for Parents on the Choice of a Profession or Trade for their Sons. By FRANCIS DAVENANT, M.A. Post 8vo, 1s.; cloth limp, 1s. 6d.

Davies (Dr. N. E.), Works by:
Crown 8vo, 1s. each; cloth limp, 1s. 6d. each.

One Thousand Medical Maxims.
Nursery Hints: A Mother's Guide.

Aids to Long Life. Crown 8vo, 2s.; cloth limp, 2s. 6d.

Davies' (Sir John) Complete Poetical Works, including Psalms I. to L. in Verse, and other hitherto Unpublished MSS., for the first time Collected and Edited, with Memorial-Introduction and Notes, by the Rev. A. B. GROSART, D.D. Two Vols., crown 8vo, cloth boards, 12s.

Daylight Land: The Adventures, Humorous and Otherwise, of Judge JOHN DOE, Tourist; CEPHAS PEPPERELL, Capitalist; Colonel GOFFE, and others, in their Excursion over Prairie and Mountain. By W. H. MURRAY. With 140 Illusts. in colours. Small 4to, cloth extra, 12s. 6d.

De Maistre—A Journey Round My Room. By XAVIER DE MAISTRE. Translated by HENRY ATTWELL. Post 8vo, cloth limp, 2s. 6d.

De Mille.—A Castle in Spain: A Novel. By JAMES DE MILLE. With a Frontispiece. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illust. bds., 2s.

Derwent (Leith), Novels by:
Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.
Our Lady of Tears. | Circe's Lovers.

Dickens (Charles), Novels by:
Post 8vo, illustrated boards, 2s. each.
Sketches by Boz. | Nicholas Nickleby
Pickwick Papers. | Oliver Twist.

The Speeches of Charles Dickens, 1841-1870. With a New Bibliography, revised and enlarged. Edited and Prefaced by RICHARD HERNE SHEPHERD. Cr. 8vo, cloth extra, 3s.—Also a SMALLER EDITION, in the *Mayfair Library*. Post 8vo, cloth limp, 2s. 6d.

About England with Dickens. By ALFRED RIMMER. With 57 Illustrations by C. A. VANDERHOOF, ALFRED RIMMER, and others. Sq. 8vo, cloth extra, 7s. 6d.

Dictionaries:

A Dictionary of Miracles: Imitative, Realistic, and Dogmatic. By the Rev. E. C. BREWER, LL.D. Crown 8vo, cloth extra, 7s. 6d.; hf.-bound, 9s.

The Reader's Handbook of Allusions, References, Plots, and Stories. By the Rev. E. C. BREWER, LL.D. With an Appendix, containing a Complete English Bibliography. Eleventh Thousand. Crown 8vo, 1,400 pages, cloth extra, 7s. 6d.

Authors and their Works, with the Dates. Being the Appendices to "The Reader's Handbook," separately printed. By the Rev. Dr. BREWER. Crown 8vo, cloth limp, 2s.

A Dictionary of the Drama: Being a comprehensive Guide to the Plays, Playwrights, Players, and Playhouses of the United Kingdom and America, from the Earliest to the Present Times. By W. DAVENPORT ADAMS. A thick volume, crown 8vo, half-bound, 12s. 6d. [*In preparation.*]

Familiar Short Sayings of Great Men. With Historical and Explanatory Notes. By SAMUEL A. BENT, M.A. Fifth Edition, revised and enlarged. Cr. 8vo, cloth extra, 7s. 6d.

The Slang Dictionary: Etymological, Historical, and Anecdotal. Crown 8vo, cloth extra, 6s. 6d.

Women of the Day: A Biographical Dictionary. By FRANCES HAYS. Cr. 8vo, cloth extra, 5s.

Words, Facts, and Phrases: A Dictionary of Curious, Quaint, and Out-of-the-Way Matters. By ELIEZER EDWARDS. New and Cheaper Issue. Cr. 8vo, cl. ex., 7s. 6d.; hf.-bd., 9s.

Diderot.—**The Paradox of Acting.** Translated, with Annotations, from Diderot's "Le Paradoxe sur le Comédien," by WALTER HERRIES POLLOCK. With a Preface by HENRY LIVING. Cr. 8vo, in parchment, 4s. 6d.

Dobson (W. T.), Works by :

Post 8vo, cloth limp, 2s. 6d. each.

Literary Frivolities, Fancies, Follies, and Frolics.

Poetical Ingeniuties and Eccentricities.

Donovan (Dick), Detective Stories by :

Post 8vo, illustrated boards, 2s. each; cloth limp, 2s. 6d. each.

The Man-hunter: Stories from the Note-book of a Detective.

Caught at Last!

Doran.—**Memories of our Great Towns;** with Anecdotic Gleanings concerning their Worthies and their Oddities. By Dr. JOHN DORAN, F.S.A. With 38 Illusts. New and Cheaper Edit. Cr. 8vo, cl. extra, 7s. 6d.

Drama, A Dictionary of the.

Being a comprehensive Guide to the Plays, Playwrights, Players, and Playhouses of the United Kingdom and America, from the Earliest to the Present Times. By W. DAVENPORT ADAMS. (Uniform with BREWER'S "Reader's Handbook.") Crown 8vo, half-bound, 12s. 6d. [*In preparation.*]

Dramatists, The Old. Cr. 8vo, cl. ex., Vignette Portraits, 6s. per Vol.

Ben Jonson's Works. With Notes Critical and Explanatory, and a Biographical Memoir by WM. GIFFORD. Edit. by Col. CUNNINGHAM. 3 Vols.

Chapman's Works. Complete in Three Vols. Vol. I. contains the Plays complete, including doubtful ones; Vol. II., Poems and Minor Translations, with Introductory Essay by A. C. SWINBURNE; Vol. III., Translations of the Iliad and Odyssey.

Marlowe's Works. Including his Translations. Edited, with Notes and Introduction, by Col. CUNNINGHAM. One Vol.

Massinger's Plays. From the Text of WILLIAM GIFFORD. Edited by Col. CUNNINGHAM. One Vol.

Dyer.—**The Folk-Lore of Plants.** By Rev. T. F. THISELTON DYER, M.A. Crown 8vo, cloth extra, 6s.

Early English Poets. Edited, with Introductions and Annotations, by Rev. A. B. GROSART, D.D. Crown 8vo, cloth boards, 6s. per Volume.

Fletcher's (Giles, B.D.) Complete Poems. One Vol.

Davies' (Sir John) Complete Poetical Works. Two Vols.

Herriek's (Robert) Complete Collected Poems. Three Vols.

Sidney's (Sir Philip) Complete Poetical Works. Three Vols.

Edgcumbe.—**Zephyrus :** A Holiday in Brazil and on the River Plate. By E. R. PEARCE EDGCUMBE. With 41 Illusts. Cr. 8vo, cl. extra, 5s.

Edwardes (Mrs. A.), Novels by :
A Point of Honour. Post 8vo, illustrated boards, 2s.

Archic Lovell. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illust. bds., 2s.

Eggleston.—**Roxy: A Novel.** By EDWARD EGGLESTON. Post 8vo, illust. boards, 2s.

Emanuel.—**On Diamonds and Precious Stones:** their History, Value, and Properties; with Simple Tests for ascertaining their Reality. By HARRY EMANUEL, F.R.G.S. With numerous Illustrations, tinted and plain. Crown 8vo, cloth extra, gilt, 6s.

Ewald (Alex. Charles, F.S.A.), Works by :

The Life and Times of Prince Charles Stuart, Count of Albany, commonly called the Young Pretender. From the State Papers and other Sources. New and Cheaper Edition, with a Portrait, crown 8vo, cloth extra, 7s. 6d.

Stories from the State Papers. With an Autotype Facsimile. Crown 8vo, cloth extra, 6s.

Studies Re-studied: Historical Sketches from Original Sources. Demy 8vo, cloth extra, 12s.

Englishman's House, The: A Practical Guide to all interested in Selecting or Building a House; with full Estimates of Cost, Quantities, &c. By C. J. RICHARDSON. Fourth Edition. With Coloured Frontispiece and nearly 600 Illustrations. Crown 8vo, cloth extra, 7s. 6d.

Eyes, Our: How to Preserve Them from Infancy to Old Age. By JOHN BROWNING, F.R.A.S., &c. Seventh Edition (Twelfth Thousand). With 70 Illustrations. Crown 8vo, cloth, 1s

Familiar Short Sayings of

Great Men. By SAMUEL ARTHUR BENT, A.M. Fifth Edition, Revised and Enlarged. Cr. 8vo, cl. ex., 7s. 6d.

Faraday (Michael), Works by :

Post 8vo, cloth extra, 4s. 6d. each.

The Chemical History of a Candle: Lectures delivered before a Juvenile Audience at the Royal Institution. Edited by WILLIAM CROOKES, F.C.S. With numerous Illustrations.

On the Various Forces of Nature, and their Relations to each other: Lectures delivered before a Juvenile Audience at the Royal Institution. Edited by WILLIAM CROOKES, F.C.S. With numerous Illustrations.

Farrer (James Anson), Works by :

Military Manners and Customs. Crown 8vo, cloth extra, 6s.

War: Three Essays, Reprinted from "Military Manners." Crown 8vo, 1s.; cloth, 1s. 6d.

Fin-Bec. — The Cupboard

Papers: Observations on the Art of Living and Dining. By FIN-BEC. Post 8vo, cloth limp, 2s. 6d.

Fireworks, The Complete Art

of Making; or, The Pyrotechnist's Treasury. By THOMAS KENTISH. With 267 Illustrations. A New Edition, Revised throughout and greatly Enlarged. Crown 8vo, cloth extra, 5s.

Fitzgerald (Percy), Works by :

The World Behind the Scenes. Crown 8vo, cloth extra, 3s. 6d.

Little Essays: Passages from the Letters of CHARLES LAMB. Post 8vo, cloth limp, 2s. 6d.

A Day's Tour: A Journey through France and Belgium. With Sketches in facsimile of the Original Drawings. Crown 4to picture cover, 1s.

Fatal Zero: A Homburg Diary. Cr. 8vo, cloth extra, 3s. 6d.; post 8vo, illustrated boards, 2s.

Post 8vo, illustrated boards, 2s. each.

Bella Donna. | **Never Forgotten.** **The Second Mrs. Tillotson** **Seventy-five Brooke Street** **Polly.** | **The Lady of Brantome.**

Fletcher's (Giles, B.D.) Com-

plete Poems: Christ's Victorie in Heaven, Christ's Victorie on Earth, Christ's Triumph over Death, and Minor Poems. With Memorial-Introduction and Notes by the Rev. A. B. GROSART, D.D. Cr. 8vo, cloth bds., 6s.

Fonblanque.—Filthy Lucre: A

Novel. By ALBANY DE FONBLANQUE. Post 8vo, illustrated boards, 2s.

Francillon (R. E.), Novels by:

Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illust. boards, 2s. each.

Ono by Ono. | **A Real Queen.** **Queen Cophotua.**

Olympia. Post 8vo, illust. boards, 2s.

Esther's Glove. Fcap. 8vo, 1s.

King or Knave: A Novel. Cheaper Edition. Cr. 8vo, cloth extra, 3s. 6d.

Romances of the Law. Frontispiece by D. H. FRISTON. Cr. 8vo, cl. ex., 6s.

Frederic. — Seth's Brother's

Wife: A Novel. By HAROLD FREDERIC. Post 8vo, illust. bds., 2s.

French Literature, History of.

By HENRY VAN LAUN. Complete in 3 Vols., demy 8vo, cl. bds., 7s. 6d. each.

Frenzeny.—Fifty Years on the

Trail: The Adventures of JOHN Y. NELSON, Scout, Guide, and Interpreter, in the Wild West. By HARRINGTON O'REILLY. With over 100 Illustrations by PAUL FRENZENY. Crown 8vo, cloth extra, 3s. 6d. [Preparing.]

Frere.—Pandurang Hari; or,

Memoirs of a Hindoo. With a Preface by Sir H. BARTLE FRERE, G.C.S.I., &c. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illustrated boards, 2s.

Friswell.—One of Two: A Novel.

By HAIN FRISWELL. Post 8vo, illustrated boards, 2s.

Frost (Thomas), Works by :

Crown 8vo, cloth extra, 3s. 6d. each.

Circus Life and Circus Celebrities. **The Lives of the Conjurors.**

Old Showmen and Old London Fairs.

Fry's (Herbert) Royal Guide

to the London Charities, 1888-9. Showing their Name, Date of Foundation, Objects, Income, Officials, &c. Edited by JOHN LANE. Published Annually. Crown 8vo, cloth, 1s. 6d.

Gardening Books:

Post 8vo, 1s. each; cl. limp, 1s. 6d. each.

A Year's Work In Garden and Greenhouse: Practical Advice to Amateur Gardeners as to the Management of the Flower, Fruit, and Frame Garden. By GEORGE GLENNY.

Our Kitchen Garden: The Plants we Grow, and How we Cook Them. By TOM JERROLD.

Household Horticulture: A Gossip about Flowers. By TOM and JANE JERROLD. Illustrated.

The Garden that Paid the Rent. By TOM JERROLD.

My Garden Wild, and What I Grew there. By F. G. HEATH. Crown 8vo, cloth extra, 5s.; gilt edges, 6s.

Garrett.—The Capel Girls: A
Novel. By EDWARD GARRETT. Cr. 8vo,
cl. ex., 3s. 6d.; post 8vo, illust. bds., 2s.

Gentleman's Magazine (The)
for 1889.—1s. Monthly.—In addition
to the Articles upon subjects in Literature,
Science, and Art, for which this
Magazine has so high a reputation,
"Tablo Talk" by SYLVANUS URBAN
appears monthly.

* * * Bound Volumes for recent years are
kept in stock, cloth extra, price 8s. 6d.
each; Cases for binding, 2s. each.

Gentleman's Annual (The).
Published Annually in November. In
illuminated cover. Demy 8vo, 1s.

German Popular Stories. Col-
lected by the Brothers GRIMM, and
Translated by EDGAR TAYLOR. Edited,
with an Introduction, by JOHN RUSKIN.
With 22 Illustrations on Steel by
GEORGE CRUIKSHANK. Square 8vo,
cloth extra, 6s. 6d.; gilt edges, 7s. 6d.

Gibbon (Charles), Novels by:
Crown 8vo, cloth extra, 3s. 6d. each
post 8vo, illustrated boards, 2s. each.

Robin Gray.	In Honour Bound.
What will the	Braes of Yarrow.
World Say?	A Heart's Prob-
Queen of the	lem.
Meadow.	The Golden Shaft.
The Flower of the	Of High Degree.
Forest.	Loving a Dream.

Post 8vo, illustrated boards, 2s. each.
For Lack of Gold.
For the King. | In Pastures Green.
In Love and War.
By Mead and Stream.
Fancy Free. | A Hard Knot.
Heart's Delight.

Blood-Money, and other Stories. Two
Vols., crown 8vo, cloth, 12s.

Gilbert (William), Novels by:
Post 8vo, illustrated boards, 2s. each.
Dr. Austin's Guests.
The Wizard of the Mountain.
James Duke, Costermonger.

Gilbert (W. S.), Original Plays
by: In Two Series, each complete in
itself, price 2s. 6d. each.

The FIRST SERIES contains—The
Wicked World—Pygmalion and Ga-
leata—Charity—The Princess—The
Palace of Truth—Trial by Jury.

The SECOND SERIES contains—Bro-
ken Hearts—Engaged—Sweethearts—
Gretchen—Dan'l Druce—Tom Cobb—
H.M.S. Pinafore—The Sorcerer—The
Pirates of Penzance.

GILBERT (W. S.), continued—

Eight Original Comic Operas. Writ-
ten by W. S. GILBERT. Containing:
The Sorcerer—H.M.S. "Pinafore"
—The Pirates of Penzance—Iolanthe
—Patience—Princess Ida—The
Mikado—Trial by Jury. Demy 8vo,
cloth limp, 2s. 6d.

Glenny.—A Year's Work In
Garden and Greenhouse: Practical
Advice to Amateur Gardeners as to
the Management of the Flower, Fruit,
and Frame Garden. By GEORGE
GLENNY. Post 8vo, 1s.; cloth, 1s. 6d.

Godwin.—Lives of the Necro-
mancers. By WILLIAM GODWIN.
Post 8vo, limp, 2s.

Golden Library, The:
Square 16mo (Tauchnitz size), cloth
limp, 2s. per Volume.

Bayard Taylor's Diversions of the
Echo Club.

Bennett's (Dr. W. C.) Ballad History
of England.

Bennett's (Dr.) Songs for Sailors.

Godwin's (William) Lives of the
Necromancers.

Holmes's Autocrat of the Break-
fast Table. Introduction by SALA.

Holmes's Professor at the Break-
fast Table.

Hood's Whims and Oddities. Com-
plete. All the original Illustrations.

Jesse's (Edward) Scenes and Oc-
cupations of a Country Life.

Leigh Hunt's Essays: A Tale for a
Chimney Corner, and other Picces.
With Portrait, and Introduction by
EDMUND OLLIER.

Mallory's (Sir Thomas) Mort
d'Arthur: The Stories of King
Arthur and of the Knights of the
Round Table. Edited by B. MONT-
GOMERIE RANKING.

Square 16mo, 2s. per Volume.

Pascal's Provincial Letters. A New
Translation, with Historical Intro-
duction and Notes, by T. M'CRIE, D.D.

Pope's Poetical Works. Complete.

Roche foucauld's Maxims and Moral
Reflections. With Notes, and In-
troduutory Essay by SAINTE-BEUVE.

Golden Treasury of Thought,
The: AN ENCYCLOPEDIA OF QUOTA-
TIONS from Writers of all Times and
Countries. Selected and Edited by
THEODORE TAYLOR. Crown 8vo, cloth
gilt and gilt edges, 7s. 6d.

Graham. — The Professor's
Wife: A Story. By LEONARD GRAHAM.
Fcap. 8vo, picture cover, 1s.

Greeks and Romans, The Life of the, Described from Antique Monuments. By ERNST GUHL and W. KÖNER. Translated from the Third German Edition, and Edited by Dr. F. HUEFFER. 545 Illusts. New and Cheaper Edition, large crown 8vo, cloth extra, 7s. 6d.

Greenaway (Kate) and Bret Harte.—The Queen of the Pirate Isle. By BRET HARTE. With 25 original Drawings by KATE GREENAWAY, Reproduced in Colours by E. EVANS. Sm. 4to, bds., 5s.

Greenwood (James), Works by: Crown 8vo, cloth extra, 3s. 6d. each.
The Wilds of London.
Low-Life Deep: An Account of the Strange Fish to be Found There.

Dick Temple: A Novel. Post 8vo, illustrated boards, 2s.

Gréville (Henri).—Nikanor: A Novel. From the French of HENRI GREVILLE, Author of "Dosia," &c. With 8 Illustrations. Crown 8vo, cloth extra, 6s.

Habberton (John), Author of "Helen's Babies," Novels by:
Post 8vo, illustrated boards, 2s. each;
cloth limp, 2s. 6d. each.
Bruton's Bayou.
Country Luck.

Hair (The): Its Treatment in Health, Weakness, and Disease. Translated from the German of Dr. J. PINCUS. Crown 8vo, 1s.; cloth, 1s. 6d.

Hake (Dr. Thomas Gordon),
Poems by:
Crown 8vo, cloth extra, 6s. each.
New Symbols.
Legends of the Morrow.
The Serpent Play.

Malden Ecstasy. Small 4to, cloth extra, 8s.

Hall.—Sketches of Irish Character. By MRS. S. C. HALL. With numerous Illustrations on Steel and Wood by MACLISE, GILBERT, HARVEY, and G. CRUIKSHANK. Medium 8vo, cloth extra, gilt, 7s. 6d.

Halliday.—Every-day Papers. By ANDREW HALLIDAY. Post 8vo, illustrated boards, 2s.

Handwriting, The Philosophy of. With over 100 Facsimiles and Explanatory Text. By DON FELIX DE SALAMANCA. Post 8vo, cl. limp, 2s. 6d.

Hanky-Panky: A Collection of Very Easy Tricks, Very Difficult Tricks, White Magic, Sleight of Hand, &c. Edited by W. H. CREMER. With 200 Illusts. Crown 8vo, cloth extra, 4s. 6d.

Hardy (Lady Duffus).—Paul Wynter's Sacrifice: A Story. By Lady DUFFUS HARDY. Post 8vo, illust. bs., 2s.

Hardy (Thomas).—Under the Greenwood Tree. By THOMAS HARDY, Author of "Far from the Madding Crowd," With numerous Illustrations. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illustrated boards, 2s.

Harwood.—The Tenth Earl. By J. BRERICK HARWOOD. Post 8vo, illustrated boards, 2s.

Haweis (Mrs. H. R.), Works by:
The Art of Dress. With numerous Illustrations. Small 8vo, illustrated cover, 1s.; cloth limp, 1s. 6d.

The Art of Beauty. New and Cheaper Edition. Crown 8vo, cloth extra. Coloured Frontispiece and Illusts. 6s.

The Art of Decoration. Square 8vo, handsomely bound and profusely illustrated, 10s. 6d.

Chaucer for Children: A Golden Key. With Eight Coloured Pictures and numerous Woodcuts. New Edition, small 4to, cloth extra, 6s.

Chaucer for Schools. Demy 8vo, cloth limp, 2s. 6d.

Haweis (Rev. H. R.).—American Humorists: WASHINGTON IRVING, OLIVER WENDELL HOLMES, JAMES RUSSELL LOWELL, ARTEMUS WARD, MARK TWAIN, and BRET HARTE. By REV. H. R. HAWEIS, M.A. Cr. 8vo, 6s.

Hawthorne (Julian), Novels by. Crown 8vo, cloth extra, 3s. 6d. each post 8vo, illustrated boards, 2s. each.
Garth. Sebastian Stroma.
Ellice Quentin. Dust.
Fortune's Fool. Beatrix Randolph.
David Poindexter's Disappearance.

Post 8vo, illustrated boards, 2s. each.
Miss Cadogna. Love—or a Name.
Prince Saroni's Wife.

Mrs. Gainsborough's Diamonds. Fcap. 8vo, illustrated cover, 1s.

A Dream and a Forgetting. By JULIAN HAWTHORNE. Cr. 8vo, picture cover, 1s.; cloth, 1s. 6d.

The Spectre of the Camera. Crown 8vo, cloth extra, 3s. 6d.

Hays.—**Women of the Day:** A Biographical Dictionary of Notable Contemporaries. By FRANCES HAYS. Crown 8vo, cloth extra, 5s.

Heath (F. G.).—**My Garden Wild, and What I Grew There.** By FRANCIS GEORGE HEATH, Author of "The Fern World," &c. Crown 8vo, cloth extra, 5s.; cl. gilt, gilt edges, 6s.

Helps (Sir Arthur), Works by :
Post 8vo, cloth limp, 2s. 6d. each.
Animals and their Masters.
Social Pressure.

Ivan de Blon: A Novel. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illustrated boards, 2s.

Henderson.—**Agatha Page:** A Novel. By ISAAC HENDERSON. With a Photograph Frontispiece from a Picture by F. MOSCHELES. 2 Vols., crown 8vo.

Herman.—**One Traveller Returns:** A Romance. By HENRY HERMAN and D. CHRISTIE MURRAY. Crown 8vo, cloth extra, 6s.

Herrick's (Robert) Hesperides, Noble Numbers, and Complete Collected Poems. With Memorial Introduction and Notes by the Rev. A. B. GROSART, D.D., Steel Portrait, Index of First Lines, and Glossarial Index, &c. Three Vols., crown 8vo, cloth, 18s.

Hesse - Wartegg (Chevalier Ernst von), Works by :

Tunis: The Land and the People. With 22 Illusts. Cr. 8vo, cl. ex., 3s. 6d.

The New South-West: Travelling Sketches from Kansas, New Mexico, Arizona, and Northern Mexico. With 100 fine Illustrations and Three Maps. Demy 8vo, cloth extra, 14s. [*In preparation.*]

Hindley (Charles), Works by :

Tavern Anecdotes and Sayings: Including the Origin of Signs, and Reminiscences connected with Taverns. Coffee Houses, Clubs, &c. With Illustrations. Crown 8vo, cloth extra, 3s. 6d.

The Life and Adventures of a Cheap Jack. By One of the Fraternity. Edited by CHARLES HINDLEY. Crown 8vo, cloth extra, 3s. 6d.

Hoey.—**The Lover's Creed.** By Mrs. CASHEL HOEY. Post 8vo, illustrated boards, 2s.

Holmes (O. Wendell), Works by :

The Autocrat of the Breakfast-Table Illustrated by J. GORDON THOMSON. Post 8vo, cloth limp, 2s. 6d.—Another Edition in smaller type, with an Introduction by G. A. SALA. Post 8vo, cloth limp, 2s.

The Professor at the Breakfast-Table; with the Story of Iris. Post 8vo, cloth limp, 2s.

Holmes.—**The Science of Voice Production and Voice Preservation:** A Popular Manual for the Use of Speakers and Singers. By GORDON HOLMES, M.D. With Illustrations. Crown 8vo, 1s; cloth, 1s. 6d.

Hood (Thomas):

Hood's Choice Works, in Prose and Verse. Including the Cream of the COMIC ANNUALS. With Life of the Author, Portrait, and 200 Illustrations. Crown 8vo, cloth extra, 7s. 6d.

Hood's Whims and Oddities. Complete. With all the original Illustrations. Post 8vo, cloth limp, 2s.

Hood (Tom), Works by :

From Nowhere to the North Pole: A Noah's Arkæological Narrative. With 25 Illustrations by W. BRUNTON and E. C. BARNES. Square crown 8vo, cloth extra, gilt edges, 6s.
A Golden Heart: A Novel. Post 8vo, illustrated boards, 2s.

Hook's (Theodore) Choice Humorous Works, including his Ludicrous Adventures, Bons Mots, Puns and Hoaxes. With a New Life of the Author, Portraits, Facsimiles, and Illusts. Cr. 8vo, cl. extra, gilt, 7s. 6d.

Hooper.—**The House of Raby:** A Novel. By Mrs. GEORGE HOOPER. Post 8vo, illustrated boards, 2s.

Horse (The) and his Rider: An Anecdotic Medley. By "THORMANBY." Crown 8vo, cloth extra, 6s.

Hopkins.—"Twixt Love and Duty:" A Novel. By TIGHE HOPKINS. Crown 8vo, cloth extra, 6s.; post 8vo, illustrated boards, 2s.

Horne.—**Orion:** An Epic Poem, in Three Books. By RICHARD HENRIST HORNE. With Photographic Portrait from a Medallion by SUMMERS. Tenth Edition, crown 8vo, cloth extra, 7s.

Hunt (Mrs. Alfred), Novels by :
Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.
Thornicroft's Model.
The Laden Casket.
Self Condemned.
That other Person.

Hunt.—Essays by Leigh Hunt.

A Tale for a Chimney Corner, and other Picces. With Portrait and Introduction by EDMUND OLLIER. Post 8vo, cloth limp, 2s.

Hydrophobia: an Account of M.

PASTEUR'S System. Containing a Translation of all his Communications on the Subject, the Technique of his Method, and the latest Statistical Results. By RENAUD SUZOR, M.B., C.M. Edin., and M.D. Paris, Commissioned by the Government of the Colony of Mauritius to study M. PASTEUR'S new Treatment in Paris. With 7 Illusts. Cr. 8vo, cloth extra, 6s.

Indoor Paupers. By ONE OF

THEM. Crown 8vo, 1s.; cloth, 1s. 6d.

Ingelow.—Fated to be Free: A

Novel. By JEAN INGELow. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illustrated boards, 2s.

Irish Wit and Humour, Songs

of. Collected and Edited by A. PERCEVAL GRAVES. Post 8vo, cl. limp, 2s. 6d.

James.—A Romance of the

Queen's Hounds. By CHARLES JAMES. Post 8vo, picture cover, 1s.; cl., 1s. 6d.

Janvier.—Practical Ceramics

for Students. By CATHERINE A. JANVIER. Crown 8vo, cloth extra, 6s.

Jay (Harriett), Novels by:

Post 8vo, illustrated boards, 2s. each.
The Dark Colleen.
The Queen of Connaught.

Jefferies (Richard), Works by:

Nature near London. Crown 8vo, cl. ex., 6s.; post 8vo, cl. limp, 2s. 6d.
The Life of the Fields. Post 8vo, cloth limp, 2s. 6d.
The Open Air. Crown 8vo, cloth extra, 6s.; post 8vo, cl. limp, 2s. 6d.
The Eulogy of Richard Jefferies. By WALTER BESANT. With a Photograph Portrait. Cr. 8vo, cl. ex., 6s.

Jennings (H. J.), Works by:

Curiosities of Criticism. Post 8vo, cloth limp, 2s. 6d.
Lord Tennyson: A Biographical Sketch. With a Photograph-Portrait. Crown 8vo, cloth extra, 6s.

Jerrold (Tom), Works by:

Post 8vo, 1s. each; cloth, 1s. 6d. each.
The Garden that Paid the Rent.
Household Horticulture: A Gossip about Flowers. Illustrated.
Our Kitchen Garden: The Plants we Grow, and How we Cook Them.

Jesse.—Scenes and Occupa-

tions of a Country Life. By EDWARD JESSE. Post 8vo, cloth limp, 2s.

Jeux d'Esprit. Collected and Edited by HENRY S. LEIGH. Post 8vo, cloth limp, 2s. 6d.

"John Herring," Novels by the Author of:

Red Spider. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illust. boards, 2s. 6d.
Etc. Crown 8vo, cloth extra, 3s. 6d.

Jones (Wm., F.S.A.), Works by:

Crown 8vo, cloth extra, 7s. 6d. each.
Finger-Ring Lore: Historical, Legendary, and Anecdotal. With over Two Hundred Illustrations.

Credulities, Past and Present; including the Sea and Seamen, Miners, Talismans, Word and Letter Divination, Exorcising and Blessing of Animals, Birds, Eggs, Luck, &c. With an Etched Frontispiece.

Crowns and Coronations: A History of Regalia in all Times and Countries. One Hundred Illustrations.

Jonson's (Ben) Works With

Notes Critical and Explanatory, and a Biographical Memoir by WILLIAM GIFFORD. Edited by Colonel CUNNINGHAM. Three Vols., crown 8vo, cloth extra, 18s.; or separately, 6s. each.

Josephus, The Complete Works

of. Translated by WHISTON. Containing both "The Antiquities of the Jews" and "The Wars of the Jews." Two Vols., 8vo, with 52 Illustrations and Maps, cloth extra, gilt, 14s.

Kempt.—Pencil and Palette:

Chapters on Art and Artists. By ROBERT KEMPT. Post 8vo, cloth limp, 2s. 6d.

Kershaw.—Colonial Facts and

Fictions: Humorous Sketches. By MARK KERSHAW. Post 8vo, illustrated boards, 2s.; cloth, 2s. 6d.

King (R. Ashe), Novels by:

Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.
A Drawn Game.
"The Wearing of the Green"

Kingsley (Henry), Novels by:

Oakshott Castle. Post 8vo, illustrated boards, 2s.
Number Seventeen. Crown 8vo, cloth extra, 3s. 6d.

Knight.—The Patient's Vade

Mecum: How to get most Benefit from Medical Advice. By WILLIAM KNIGHT, M.R.C.S., and EDW. KNIGHT, L.R.C.P. Cr. 8vo, 1s.; cloth, 1s. 6d.

Knights (The) of the Lion: A

Romance of the Thirteenth Century. Edited, with an Introduction, by the MARQUESS OF LORNE, K.T. Crown 8vo, cloth extra, 6s.

Lamb (Charles):

Lamb's Complete Works, in Prose and Verse, reprinted from the Original Editions, with many Pieces hitherto unpublished. Edited, with Notes and Introduction, by R. H. SHEPHERD. With Two Portraits and Facsimile of Page of the "Essay on Roast Pig." Cr. 8vo, cl. extra, 7s. 6d.

The Essays of Elia. Roth Series complete. Post 8vo, laid paper, handsomely half-bound, 2s.

Poetry for Children, and **Prince Dorus**. By CHARLES LAMB. Carefully reprinted from unique copies. Small 8vo, cloth extra, 5s.

Little Essays: Sketches and Characters by CHARLES LAMB. Selected from his Letters by PERCY FITZGERALD. Post 8vo, cloth limp, 2s. 6d.

Lane's Arabian Nights.—The Thousand and One Nights: commonly called, in England, "THE ARABIAN NIGHTS' ENTERTAINMENTS." A New Translation from the Arabic with copious Notes, by EDWARD WILLIAM LANE. Illustrated by many hundred Engravings on Wood, from Original Designs by WM. HARVEY. A New Edition, from a Copy annotated by the Translator, edited by his Nephew, EDWARD STANLEY POOLE. With a Preface by STANLEY LANE-POOLE. Three Vols., deny 8vo, cloth extra, 7s. 6d. each.

Larwood (Jacob), Works by:

The Story of the London Parks. With Illusts. Cr. 8vo, cl. ex., 3s. 6d.

Post 8vo, cloth limp, 2s. 6d. each.
Forensic Anecdotes.
Theatrical Anecdotes.

Leigh (Henry S.), Works by:

Carols of Cockayne. A New Edition, printed on feap. 8vo, hand-made paper, and bound in buckram, 5s.

Joux d'Esprit. Collected and Edited by HENRY S. LEIGH. Post 8vo, cloth limp, 2s. 6d.

Leys.—The Lindsays: A Romance of Scottish Life. By JOHN K. LEYS. Cheaper Edition. Post 8vo, illustrated boards, 2s.

Life in London; or, The History of Jerry Hawthorn and Corinthiao Tom. With the whole of CRUIKSHANK'S Illustrations, in Colours, after the Originals. Cr. 8vo, cl. extra, 7s. 6d.

Linskill.—In Exchange for a Soul. By MARY LINSKILL, Author of "The Harem Under the Hill," &c. Cheaper Edit. Post 8vo, illust. bds., 2s.

Linton (E. Lynn), Works by:

Post 8vo, cloth limp, 2s. 6d. each.

Witch Stories.

The True Story of Joshua Davidson.
Ourselves: Essays on Women.

Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.

Patricia Kemball.

The Atonement of Leam Dundas

The World Well Lost.

Under which Lord?

"My Love!" | Ione.

Paston Carew, Millionaire and Miser.

Post 8vo, illustrated boards, 2s. each.

With a Silken Thread.

The Rebel of the Family.

Longfellow's Poetical Works.

Carefully Reprinted from the Original Editions. With numerous fine Illustrations on Steel and Wood. Crown 8vo, cloth extra, 7s. 6d.

Long Life, Aids to: A Medical, Dietetic, and General Guide in Health and Disease. By N. E. DAVIES, L.R.C.P. Cr. 8vo, 2s.; cl. limp, 2s. 6d.

Lucy.—Gideon Fleyce: A Novel.

By HENRY W. LUCY. Crown 8vo, cl. ex., 3s. 6d.; post 8vo, illust. bds., 2s.

Lusiad (The) of Camoens.

Translated into English Spenserian Verse by ROBERT FRENCH DUFF. Demy 8vo, with Fourteen full-page Plates, cloth boards, 18s.

Macalpine (Avery), Novels by:

Teresa Itasca, and other Stories. Crown 8vo, bound in canvas, 2s. 6d.

Broken Wings. With Illustrations by W. J. HENNESSY. Crown 8vo, cloth extra, 6s.

McCarthy (Justin H., M.P.),

Works by:

An Outline of the History of Ireland, from the Earliest Times to the Present Day. Cr. 8vo, 1s.; cloth, 1s. 6d.

Ireland since the Union: Sketches of Irish History from 1793 to 1885. Crown 8vo, cloth extra, 6s.

England under Gladstone, 1880-85. Second Edition, revised. Crown 8vo, cloth extra, 6s.

Doom! An Atlantic Episode. Crown 8vo, 1s.; cloth, 1s. 6d.

Our Sensation Novel. Edited by JUSTIN H. MCCARTHY. Crown 8vo, 1s.; cloth, 1s. 6d.

Dolly: A Sketch. Crown 8vo, picture cover, 1s.; cloth, 1s. 6d.

Hafiz in London. Choicely printed. Small 8vo, gold cloth, 3s. 6d.

McCarthy (Justin, M.P.), Works by:

A History of Our Own Times, from the Accession of Queen Victoria to the General Election of 1880. Four Vols. demy 8vo, cloth extra, 12s. each.—Also a POPULAR EDITION, in Four Vols. cr. 8vo, cl. extra, 6s. each.—And a JUBILEE EDITION, with an Appendix of Events to the end of 1886, complete in Two Vols., square 8vo, cloth extra, 7s. 6d. each.

A Short History of Our Own Times. One Vol., crown 8vo, cloth extra, 6s.

History of the Four Georges. Four Vols. demy 8vo, cloth extra, 12s. each. (Vol. I. now ready.)

Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.

Dear Lady Disdain.

The Waterdale Neighbour.

A Fair Saxon.

Miss Misanthrope.

Donna Quixote.

The Comet of a Season.

Maid of Athens.

Camilla: A Girl with a Fortune.

Post 8vo, illustrated boards, 2s. each.

Linley Rochford.

My Enemy's Daughter.

"The Right Honourable:" A Romance of Society and Politics. By JUSTIN MCCARTHY, M.P., and MRS. CAMPBELL-PRAED. New and Cheaper Edition, crown 8vo, cloth extra, 6s.

MacColl.—Mr. Stranger's

Sealed Packet: A New Story of Adventure. By HUGH MACCOLL. Crown 8vo, cloth extra, 5s.

MacDonald.—Works of Fancy

and Imagination. By GEORGE MACDONALD, LL.D. Ten Volumes, in handsome cloth case, 21s.—Vol. 1. WITHIN AND WITHOUT. THE HIDDEN LIFE.—Vol. 2. THE DISCIPLE. THE GOSPEL WOMEN. A BOOK OF SONNETS, ORGAN SONGS.—Vol. 3. VIOLIN SONGS. SONGS OF THE DAYS AND NIGHTS. A BOOK OF DREAMS. ROADSIDE POEMS. POEMS FOR CHILDREN. Vol. 4. PARABLES. BALLADS. SCOTCH SONGS.—Vols. 5 and 6. PHANTASIES: A FAERIE ROMANCE.—Vol. 7. THE PORTENT.—Vol. 8. THE LIGHT PRINCESS. THE GIANT'S HEART. SHAOWS.—Vol. 9. CROSS PURPOSES. THE GOLDEN KEY. THE CARASOYN. LITTLE DAYLIGHT.—Vol. 10. THE CRUEL PAINTER. THE WOVEN RIVEN. THE CASTLE. THE BROKEN SWOROS. THE GRAY WOLF. UNCLE CORNELIUS.

The Volumes are also sold separately in Grolier-pattern cloth, 2s. 6d. each.

Macdonell.—Quaker Cousins:

A NOVEL. By AGNES MACDONELL. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illustrated boards, 2s.

Macgregor.—Pastimes and

Players. Notes on Popular Games. By ROBERT MACGREGOR. Post 8vo, cloth limp, 2s. 6d.

Mackay.—Interludes and Un-

dertones; or, Music at Twilight. By CHARLES MACKAY, LL.D. Crown 8vo cloth extra, 6s.

Maclise Portrait-Gallery (The)

of Illustrious Literary Characters; with Memoirs—Biographical, Critical, Bibliographical, and Anecdotal—illustrative of the Literature of the former half of the Present Century. By WILLIAM BATES, B.A. With 85 Portraits printed on an India Tint. Crown 8vo, cloth extra, 7s. 6d.

Macquoid (Mrs.), Works by:

Square 8vo, cloth extra, 7s. 6d. each.

In the Ardennes. With 50 fine Illustrations by THOMAS R. MACQUOID.

Pictures and Legends from Normandy and Brittany. With numerous Illustrations, by THOMAS R. MACQUOID.

Through Normandy. With 90 Illustrations by T. R. MACQUOID.

Through Brittany. With numerous Illustrations by T. R. MACQUOID.

About Yorkshire. With 67 Illustrations by T. R. MACQUOID.

Post 8vo, illustrated boards, 2s. each.

The Evil Eye, and other Stories.

Lost Rose.

Magician's Own Book (The):

Performances with Cups and Balls, Eggs Hats, Handkerchiefs, &c. All from actual Experience. Edited by W. H. CREMER. With 200 Illustrations. Crown 8vo, cloth extra, 4s. 6d.

Magic Lantern (The), and its

Management: including full Practical Directions for producing the Limelight, making Oxygen Gas, and preparing Lantern Slides. By T. C. HEPPWORTH. With 10 Illustrations. Crown 8vo, 1s.; cloth, 1s. 6d.

Magna Charta.

An exact Facsimile of the Original in the British Museum, printed on fine plate paper, 3 feet by 2 feet, with Arms and Seals emblazoned in Gold and Colours. 5s.

Mallock (W. H.), Works by:

The New Republic; or, Culture, Faith and Philosophy in an English Country House. Post 8vo, cloth limp, 2s. 6d.; Cheap Edition, illustrated boards, 2s.

The New Paul and Virginia; or, Positivism on an Island. Post 8vo, cloth limp, 2s. 6d.

Poems. Small 4to, in parchment, 8s. Is Life worth Living? Crown 8vo, cloth extra, 6s.

Mallory's (Sir Thomas) Mort

d'Arthur: The Stories of King Arthur and of the Knights of the Round Table. Edited by B. MONTGOMERIE RANKING. Post 8vo, cloth limp, 2s.

Man - Hunter (The): Stories

from the Note-book of a Detective. By DICK DONOVAN. Post 8vo, illustrated boards, 2s.; cloth, 2s. 6d.

Mark Twain, Works by:

The Choice Works of Mark Twain. Revised and Corrected throughout by the Author. With Life, Portrait, and numerous Illust. Cr. 8vo, cl. ex., 7s. 6d.

The Innocents Abroad; or, The New Pilgrim's Progress: Being some Account of the Steamship "Quaker City's" Pleasure Excursion to Europe and the Holy Land. With 234 Illustrations. Crown 8vo, cloth extra, 7s. 6d.—Cheap Edition (under the title of "MARK TWAIN'S PLEASURE TRIP"), post 8vo, illust. boards, 2s.

Roughing It, and The Innocents at Home. With 200 Illustrations by F. A. FRASER. Cr. 8vo, cl. ex., 7s. 6d.

The Gilded Age. By MARK TWAIN and CHARLES DUNLEY WARNER. With 212 Illustrations by T. COPPIN. Crown 8vo, cloth extra, 7s. 6d.

The Adventures of Tom Sawyer. With 111 Illustrations. Crown 8vo, cloth extra, 7s. 6d.—Cheap Edition post 8vo, illustrated boards, 2s.

The Prince and the Pauper. With nearly 200 Illustrations. Crown 8vo, cloth extra, 7s. 6d.—Cheap Edition, post 8vo, illustrated boards, 2s.

A Tramp Abroad. With 314 Illusts. Cr. 8vo, cloth extra, 7s. 6d.—Cheap Edition, post 8vo, illust. bds., 2s.

The Stolen White Elephant, &c. Cr. 8vo, cl. ex., 6s.; post 8vo, illust. bs., 2s.

Life on the Mississippi. With about 300 Original Illustrations. Crown 8vo, cloth extra, 7s. 6d.—Cheap Edition, post 8vo, illustrated boards, 2s.

The Adventures of Huckleberry Finn. With 174 Illustrations by E. W. KEMBLE. Crown 8vo, cloth extra, 7s. 6d.—Cheap Edition, post 8vo, illustrated boards, 2s.

Mark Twain's Library of Humour. With numerous Illustrations. Crown 8vo, cloth extra, 7s. 6d.

Marlowe's Works. Including his Translations. Edited, with Notes and Introductions, by Col. CUNNINGHAM. Crown 8vo, cloth extra, 6s.

Marryat (Florence), Novels by:

Crown 8vo, cloth extra, 3s. 6d. each;

post 8vo, illustrated boards, 2s. each.

Open! Scsane! | Written in Fire.

Post 8vo, illustrated boards, 2s. each.

A Harvest of Wild Oats.

Fighting the Air.

Massinger's Plays. From the

Text of WILLIAM GIFFORD. Edited by Col. CUNNINGHAM. Crown 8vo, cloth extra, 6s.

Masterman.—Half a Dozen

Daughters: A Novel. By J. MASTERMAN. Post 8vo, illustrated boards, 2s.

Matthews.—A Secret of the

Sea, &c. By BRANDER MATTHEWS. Post 8vo, illust. bds., 2s.; cloth, 2s. 6d.

Mayfair Library, The:

Post 8vo, cloth limp, 2s. 6d. per Volume. A Journey Round My Room. By XAVIER DE MAISTRE. Translated by HENRY ATTWELL.

Quips and Quiddities. Selected by W. DAVENPORT ADAMS.

The Agony Column of "The Times," from 1800 to 1870. Edited, with an Introduction, by ALICE CLAY.

Melancholy Anatomised: A Popular Abridgment of "Burton's Anatomy of Melancholy."

The Speeches of Charles Dickens. Literary Frlvolttles, Fancies, Follies, and Frolics. By W. T. DOBSON.

Poetical Ingenuities and Eccentricities. Selected and Edited by W. T. DOBSON.

The Cupboard Papers. By FIN-BEC. Original Plays by W. S. GILBERT.

FIRST SERIES. Containing: The Wicked World—Pygmalion and Galatea—Charity—The Princess—The Palace of Truth—Trial by Jury

Original Plays by W. S. GILBERT. SECOND SERIES. Containing: Broken Hearts—Engaged—Sweethearts—Gretchen—Dan'l Druce—Tom Cobb—H.M.S. Pinafore—The Sorcerer—The Pirates of Penzance.

Songs of Irish Wit and Humour. Collected and Edited by A. PERCEVAL GRAVES.

Animals and their Masters. By SIR ARTHUR HELPS.

Social Pressure. By SIR A. HELPS. Curiosities of Criticism. By HENRY J. JENNINGS.

The Autocrat of the Breakfast-Table. By OLIVER WENDELL HOLMES. Illustrated by J. GORDON THOMSON.

MAYFAIR LIBRARY, *continued*—

- Pencil and Palette.** By R. KEMPT.
Little Essays: Sketches and Characters. By CHAS. LAMB. Selected from his Letters by PERCY FITZGERALD.
Forensic Anecdotes; or, Humour and Curiosities of the Law and Men of Law. By JACOB LARWOOD.
Theatrical Anecdotes. By JACOB LARWOOD. [LEIGH.
Jeux d'Esprit. Edited by HENRY S. TRUE HISTORY of Joshua Davidson. By E. LYNN LINTON.
Witch Stories. By E. LYNN LINTON.
Ourselfs: Essays on Women. By E. LYNN LINTON. [MACGREGOR.
Pastimes and Players. By ROBERT THE NEW PAUL and Virginia. By W. H. MALLOCK.
New Republic. By W. H. MALLOCK.
Puck on Pegasus. By H. CHOLMONDELEY-PENNEL. Illustrated by GEORGE DU MAURIER.
Pegasus Re-Saddled. By H. CHOLMONDELEY-PENNEL. Illustrated by GEORGE DU MAURIER.
Muses of Mayfair Edited by H. CHOLMONDELEY-PENNEL.
Thoreau: His Life and Aims. By H. A. PAGE.
Puniana. By the Hon. HUGH ROWLEY.
More Puniana. By Hon. H. ROWLEY.
The Philosophy of Handwriting. By DON FELIX DE SALAMANCA.
By Stream and Sea By WILLIAM SENIOR.
Leaves from a Naturalist's Notebook. By DR. ANDREW WILSON.

Mayhew.—**London Characters and the Humorous Side of London Life.** By HENRY MAYHEW. With numerous Illusts. Cr. 8vo, cl. extra, 3s. 6d.

Medicine, Family.—**One Thousand Medical Maxims and Surgical Hints, for Infancy, Adult Life, Middle Age, and Old Age.** By N. E. DAVIES, L.R.C.P. Lond. Cr. 8vo, 1s.; cl., 1s. 6d.

Menken.—**Infelicia:** Poems by ADAH ISAACS MENKEN. A New Edition, with a Biographical Preface, numerous Illustrations by F. E. LUNNIS and F. O. C. DARLEY, and Facsimile of a Letter from CHARLES DICKENS. Beautifully printed on small 4to ivory paper, with red border to each page, and handsomely bound. Price 7s. 6d.

Mexican Mustang (On a), through Texas, from the Gulf to the Rio Grande. A New Book of American Humour. By A. E. SWEET and J. ARMOY, Knox, Editors of "Texas Sitings." With 265 Illusts. Cr. 8vo, cl. extra, 7s. 6d.

Middlemass (Jean), Novels by: Post 8vo, illustrated boards, 2s. each.
Touch and Go. | Mr. Dorrillion,

Miller.—**Physiology for the Young;** or, **The House of Life:** Human Physiology, with its application to the Preservation of Health. For Classes and Popular Reading. With numerous Illusts. By MRS. F. FENWICK MILLER. Small 8vo, cloth limp, 2s. 6d.

Milton (J. L.), Works by:
 Sm. 8vo, 1s. each; cloth ex., 1s. 6d. each.
The Hygiene of the Skin. A Concise Set of Rules for the Management of the Skin; with Directions for Diet, Wines, Soaps, Baths, &c.
The Bath in Diseases of the Skin.
The Laws of Life, and their Relation to Diseases of the Skin.

Minto.—**Was She Good or Bad?**
 A Romance. By WILLIAM MINTO. Cr. 8vo, picture cover, 1s.; cloth, 1s. 6d.

Molesworth (Mrs.), Novels by:
Hathercourt Rectory. Crown 8vo, cloth extra, 4s. 6d.; post 8vo, illustrated boards, 2s.
That Girl in Black. Crown 8vo, picture cover, 1s.; cloth, 1s. 6d.

Moncrieff.—**The Abdication;** or, **Time Tries All.** An Historical Drama. By W. D. SCOTT-MONCRIEFF. With Seven Etchings by JOHN PETTIE, R.A., W. Q. ORCHARDSON, R.A., J. MACWHIRTER, A.R.A., COLIN HUNTER, A.R.A., R. MACBETH, A.R.A., and TOM GRAHAM, R.S.A. Large 4to, bound in buckram, 21s.

Moore (Thomas):
Byron's Letters and Journals; with Notices of his Life. By THOMAS MOORE. Cr. 8vo, cloth extra, 7s. 6d.
Prose and Verse, Humorous, Satirical, and Sentimental, by THOMAS MOORE; with Suppressed Passages from the Memoirs of Lord Byron. Edited, with Notes and Introduction, by R. HERNE SHEPHERD. With a Portrait. Cr. 8vo, cloth extra, 7s. 6d.

Murray (D. Christie), Novels by. Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.
A Life's Atonement. | A Model Father.
Joseph's Coat. | Coals of Fire.
By the Gate of the Sea.
Val Strange. | Hearts.
A Bit of Human Nature.
First Person Singular.
Cynic Fortune.

The Way of the World. Post 8vo, illustrated boards, 2s.
Old Blazer's Hero. With Three Illustrations by A. McCORMICK. Crown 8vo, cloth ex., 6s.—Cheaper Edition, post 8vo, illust. boards, 2s.
One Traveller Returns. By D. CHRISTIE MURRAY and H. HERMAN. Cr. 8vo, cl. ex., 6s.

Muddock.—*Stories Weird and Wonderful.* By J. E. Muddock. Post 8vo, illust. boards, 2s.; cloth, 2s. 6d.

Novelists.—*Half-Hours with the Best Novelists of the Century:* Choice Readings from the finest Novels. Edited, with Critical and Biographical Notes, by H. T. Mackenzie Bell. Crown 8vo, cl. ex., 3s. 6d. [*Preparing.*]

Nursery Hints: *A Mother's Guide in Health and Disease.* By N. E. DAVIES, L.R.C.P. Cr. 8vo, 1s.; cl., 1s. 6d.

O'Connor.—*Lord Beaconsfield:* A Biography. By T. P. O'CONNOR, M.P. Sixth Edition, with a New Preface. Crown 8vo, cloth extra, 5s.

O'Hanlon (Alice), *Novels by:* *The Unforseen.* Post 8vo, illust. bds, 2s. *Chance? or Fate?* 3 vols., cr. 8vo.

Ohnet.—*Doctor Rameau:* A Novel. By GEORGES OHNET, Author of "The Ironmaster," &c. Translated by Mrs. CASHEL HOBY. With 9 Illustrations by E. BAYARD. Crown 8vo, cloth extra, 6s.

Oliphant (Mrs.) *Novels by:* *Whitcladles.* With Illustrations by ARTHUR HOPKINS and H. WOODS. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illustrated boards, 2s.

Crown 8vo, cloth extra, 4s. 6d. each; post 8vo, illustrated boards, 2s. each. *The Primrose Path.* *The Greatest Heiress in England.*

O'Reilly.—*Phoebe's Fortunes:* A Novel. With Illustrations by HENRY TUCK. Post 8vo, illustrated boards, 2s.

O'Shaughnessy (A.), *Poems by:* *Songs of a Worker.* Fcap. 8vo, cloth extra, 7s. 6d.

Music and Moonlight. Fcap. 8vo, cloth extra, 7s. 6d.

Lays of France. Cr. 8vo, cl. ex., 10s. 6d.

Ouida, *Novels by.* Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.

Held in Bondage. Pascarel. Strathmore. Signa. | *Ariadne.*

Chandos. In a Winter City.

Under Two Flags. Friendship.

Cecil Castle. Moths. | *Blmbl.*

malne's Gage. Pipistrello.

Idalia. In Maremma.

Tricotrln. A Village Com-

Puck. mune.

Folie Farline. Wanda.

Two Little Wooden Shoes. Frescocs. [*Ine.*]

A Dog of Flanders. Princess Naprax-

Othmar,

OUIDA—continued.

Gullderoy: A Novel. 3 vols., crown 8vo. — [*June.*]

Wisdom, Wit, and Pathos, selected from the Works of OUIDA by F. SYDNEY MORRIS. Sm. cr. 8vo, cl. ex., 5s. CHEAPER EDITION, illust. bds., 2s.

Page (H. A.), *Works by:*

Thoreau His Life and Aims: A Study. With Portrait. Post 8vo, cl. limp, 2s. 6d.

Lights on the Way: Some Tales within a Tale. By the late J. H. ALEXANDER, B.A. Edited by H. A. PAGE. Crown 8vo, cloth extra, 6s.

Animal Anecdotes. Arranged on a New Principle. Cr. 8vo, cl. extra, 5s.

Parliamentary Elections and Electioneering in the Old Days (A History of). Showing the State of Political Parties and Party Warfare at the Hustings and in the House of Commons from the Stuarts to Queen Victoria. Illustrated from the original Political Squibs, Lampoons, Pictorial Satires, and Popular Caricatures of the Time. By JOSEPH GREGO, Author of "Rowlandson and his Works," "The Life of Gillray," &c. A New Edition, crown 8vo, cloth extra, with Coloured Frontispiece and 100 Illustrations, 7s. 6d. [*Preparing.*]

Pascal's Provincial Letters. A New Translation, with Historical Introduction and Notes, by T. M'CRIE, D.D. Post 8vo, cloth limp, 2s.

Patient's (The) Vade Mecum: How to get most Benefit from Medical Advice. By W. KNIGHT, M.R.C.S., and E. KNIGHT, L.R.C.P. Cr. 8vo, 1s.; cl. 1/6.

Paul Ferroll:

Post 8vo, illustrated boards, 2s. each.

Paul Ferroll: A Novel.

Why Paul Ferroll Killed his Wife.

Payn (James), *Novels by.*

Crown 8vo, cloth extra, 3s. 6d. each;

post 8vo, illustrated boards, 2s. each.

Lost Sir Massingberd.

Walter's Word.

Less Black than we're Painted.

By Proxy. | *High Spirits.*

Under One Roof.

A Confidential Agent.

Some Private Views.

A Grape from a Thorn.

From Exile. | *The Canon's Ward.*

The Talk of the Town.

Holiday Tasks | *Glow-worm Tales.*

Post 8vo, illustrated boards, 2s. each.

Kit: A Memory. | *Carlyon's Year.*

A Perfect Treasure.

Bentlnck's Tutor. | *Murphy's Master.*

The Best of Husbands.

PAYN (JAMES), continued—

Post 8vo, illustrated boards, 2s. each.
For Cash Only.
What He Cost Her. | **Cecil's Tryst.**
Fallen Fortunes. | **Halves.**
A County Family. | **At Her Mercy.**
A Woman's Vengeance.
The Clyffards of Clyffe.
The Family Scapegrace.
Tho Foster Brothers. | **Found Dead.**
Gwendollne's Harvest.
Humorous Stories.
Like Father, Like Son.
A Marine Residence.
Married Beneath Him.
Mirk Abbey. | **Not Wooed, but Won.**
Two Hundred Pounds Reward.
 Crown 8vo, cloth extra, 3s. 6d. each.
In Peril and Privation: *Stories of*
Marine Adventure Re-told. With 17
 Illustrations.
The Mystery of Mirbridge. With a
 Frontispiece by ARTHUR HOPKINS.

Paul.—Gentle and Simple. By
 MARGARET AGNES PAUL. With a
 Frontispiece by HELEN PATERSON.
 Cr. 8vo, cloth extra, 3s. 6d.; post 8vo,
 illustrated boards, 2s.

Pears.—The Present Depres-
sion In Trade: Its Causes and Remed-
ies. Being the "Pears" Prize Essays
 (of One Hundred Guineas). By EDWIN
 GOADBY and WILLIAM WATT. With
 an Introductory Paper by Prof. LEONE
 LEVI, F.S.A., F.S.S. Demy 8vo, 1s.

Pennell (H. Cholmondeley),
Works by:
 Post 8vo, cloth limp, 2s. 6d. each.
Puck on Pegasus. With Illustrations.
Pegasus Re-Saddled. With Ten full-
 page Illusts. by G. DU MAURIER.
The Muses of Mayfair. Vers de
 Société, Selected and Edited by H.
 C. PENNELL.

Phelps (E. Stuart), Works by:
 Post 8vo, 1s. each; cl. limp, 1s. 6d. each.
Beyond the Gates. By the Author
 of "The Gates Ajar."
An Old Maid's Paradise.
Burglars In Paradise.

Jack the Fisherman. With Twenty-
 two Illustrations by C. W. REED.
 Cr. 8vo, picture cover, 1s.; cl. 1s. 6d.

Pirkis (C. L.), Novels by:
Trooping with Crows. Fcap. 8vo,
 picture cover, 1s.
Lady Lovelace. Post 8vo, illustrated
 boards, 2s.

Plutarch's Lives of Illustrious
Men. Translated from the Greek,
 with Notes Critical and Historical, and
 a Life of Plutarch, by JOHN and
 WILLIAM LANGHORNE. Two Vols.,
 8vo, cloth extra, with Portraits, 10s. 6d.

Planché (J. R.), Works by:

The Pursuivant of Arms; or, **Her-**
aldry Founded upon Facts. With
 Coloured Frontispiece and 200 Illus-
 trations. Cr. 8vo, cloth extra, 7s. 6d.
Songs and Poems, from 1819 to 1879.
 Edited, with an Introduction, by his
 Daughter, Mrs. MACKARNESS. Crown
 8vo, cloth extra, 6s.

Poe (Edgar Allan):—

The Choice Works, in Prose and
 Poetry, of EDGAR ALLAN POE. With
 an Introductory Essay by CHARLES
 BAUDELAIRE, Portrait and Fac-
 similes. Crown 8vo, cl. extra, 7s. 6d.
The Mystery of Marlo Roget, and
 other Stories. Post 8vo, illust. bds., 2s.

Pope's Poetical Works. Com-
 plete in One Vol. Post 8vo, cl. limp, 2s.

Praed (Mrs. Campbell).—"The
Right Honourable:" A Romance of
 Society and Politics. By Mrs. CAMP-
 BELL-PRAED and JUSTIN MCCARTHY,
 M.P. Cr. 8vo, cloth extra, 6s.

Price (E. C.), Novels by:

Crown 8vo, cloth extra, 3s. 6d. each;
 post 8vo, illustrated boards, 2s. each.
Valentina. | **The Foreigners.**
 Mrs. Lancaster's Rival.

Gerald. Post 8vo, illust. boards, 2s.

Princess Olga—Radna; or, **The**
Great Conspiracy of 1831. By the
 Princess OLGA. Cr. 8vo, cl. ex., 6s.

Proctor (Rich. A.), Works by:

Flowers of the Sky. With 55 Illusts.
 Small crown 8vo, cloth extra, 3s. 6d.
Easy Star Lessons. With Star Maps
 for Every Night in the Year, Draw-
 ings of the Constellations, &c.
 Crown 8vo, cloth extra, 6s.

Familiar Science Studies. Crown
 8vo, cloth extra, 6s.

Saturn and Its System. New and
 Revised Edition, with 13 Steel Plates.
 Demy 8vo, cloth extra, 10s. 6d.

Mysteries of Time and Space. With
 Illusts. Cr. 8vo, cloth extra, 6s.

The Universe of Suns, and other
 Science Gleanings. With numerous
 Illusts. Cr. 8vo, cloth extra, 6s.

Wages and Wants of Science
Workers. Crown 8vo, 1s. 6d.

Rambosson.—Popular Astro-

nomy. By J. RAMBOSSON, Laureate of
 the Institute of France. Translated by
 C. B. PITMAN. Crown 8vo, cloth gilt,
 numerous Illusts., and a beautifully
 executed Chart of Spectra, 7s. 6d.

Reade (Charles), Novels by :

Cr. 8vo, cloth extra, illustrated, 3s. 6d. each; post 8vo, illust. bds., 2s. each.

Peg Woffington. Illustrated by S. L. FIELDS, A.R.A.

Christie Johnstone. Illustrated by WILLIAM SMALL.

It is Never Too Late to Mend. Illustrated by G. I. PINWELL.

The Course of True Love Never did run Smooth. Illustrated by HELEN PATERSON.

The Autobiography of a Thief; Jack of all Trades; and James Lambert. Illustrated by MATT STRETCH.

Love me Little, Love me Long. Illustrated by M. ELLEN EDWARDS.

The Double Marriage. Illust. by Sir JOHN GILBERT, R.A., and C. KEENE.

The Cloister and the Hearth. Illustrated by CHARLES KEENE.

Hard Cash. Illust. by F. W. LAWSON, Griffith Gaunt, Illustrated by S. L. FIELDS, A.R.A., and WM. SMALL.

Foul Play. Illust. by DU MAURIER.

Put Yourself in His Place. Illustrated by ROBERT BARNES.

A Terrible Temptation. Illustrated by EDW. HUGHES and A. W. COOPER.

The Wandering Heir. Illustrated by H. PATERSON, S. L. FIELDS, A.R.A., C. GREEN, and H. WOODS, A.R.A.

A Simpleton. Illustrated by KATE CRAWFORD. [COULDERY.]

A Woman-Hater. Illust. by THOS. SINGLEHEART and Doubleface: A Matter-of-fact Romance. Illustrated by P. MACNAB.

Good Stories of Men and other Animals. Illustrated by E. A. ABBEY, PERCY MACQUOIN, and JOSEPH NASH.

The Jilt, and other Stories. Illustrated by JOSEPH NASH.

Readiana. With a Steel-plate Portrait of CHARLES READE.

Bible Characters: Studies of David, Nehemiah, Jonah, Paul, &c. Feap. 8vo, leatherette, 1s.

Reader's Handbook (The) of

Allusions, References, Plots, and Stories. By the Rev. Dr. BREWER. Fifth Edition, revised throughout, with a New Appendix, containing a COMPLETE ENGLISH BIBLIOGRAPHY. Cr. 8vo, 1,400 pages, cloth extra, 7s. 6d.

Richardson. — A Ministry of

Health, and other Papers. By BENJAMIN WARD RICHARDSON, M.D., &c. Crown 8vo, cloth extra, 6s.

Riddell (Mrs. J. H.), Novels by:

Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.

Her Mother's Darling.

The Prince of Wales's Garden Party.

Welsh Stories.

Post 8vo, illustrated boards, 2s. each.

The Uninhabited House.

Fairy Water.

The Mystery in Palace Gardens.

Rimmer (Alfred), Works by :

Square 8vo, cloth gilt, 7s. 6d. each.

Our Old Country Towns. With over 50 Illustrations.

Rambles Round Eton and Harrow With 50 Illustrations.

About England with Dickens. With 58 Illustrations by ALFRED RIMMER and C. A. VANDERHOOF.

Robinson (F. W.), Novels by :

Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.

Women are Strange.

The Hands of Justice.

Robinson (Phil), Works by :

Crown 8vo, cloth extra, 7s. 6d. each.

The Poets' Birds.

The Poets' Beasts.

The Poets and Nature: Reptiles, Fishes, and Insects. [Preparing.]

Rochefoucauld's Maxims and

Moral Reflections. With Notes, and an Introductory Essay by SAINTE-BEUVE. Post 8vo, cloth limp, 2s.

Roll of Battle Abbey, The; or,

A List of the Principal Warriors who came over from Normandy with William the Conqueror, and Settled in this Country, A.D. 1066-7. With the principal Arms emblazoned in Gold and Colours. Handsomely printed, 5s.

Rowley (Hon. Hugh), Works by

Post 8vo, cloth limp, 2s. 6d. each.

Punlana: Riddles and Jokes. With numerous Illustrations.

More Punlana. Profusely Illustrated.

Runciman (James), Stories by :

Post 8vo, illustrated boards, 2s. each; cloth limp, 2s. 6d. each.

Skippers and Shellbacks.

Grace Balmalgin's Sweetheart.

Schools and Scholars.

Russell (W. Clark), Works by:
 Crown 8vo, cloth extra, 6s. each; post
 8vo, illustrated boards, 2s. each.
 Round the Galley-Fire.
 In the Middle Watch.
 A Voyage to the Cape.
 A Book for the Hammock.

On the Fo'k'sle Head. Post 8vo, illus-
 trated boards, 2s.
The Mystery of the "Ocean Star,"
 &c. Crown 8vo, cloth extra, 6s.

Sala.—Gaslight and Daylight.
 By GEORGE AUGUSTUS SALA. Post
 8vo, illustrated boards, 2s.

Sanson.—Seven Generations
of Executioners: Memoirs of the
 Sanson Family (1688 to 1847). Edited by
 HENRY SANSON. Cr. 8vo, cl. ex. 3s. 6d.

Saunders (John), Novels by:
 Crown 8vo, cloth extra, 3s. 6d. each;
 post 8vo, illustrated boards, 2s. each.
 Bound to the Wheel.
 Guy Waterman. Lion in the Path.
 The Two Dreamers.

One Against the World. Post 8vo,
 illustrated boards, 2s.

Saunders (Katharine), Novels
 by. Cr. 8vo, cloth extra, 3s. 6d. each;
 post 8vo, illustrated boards, 2s. each.
 Margaret and Elizabeth.
 The High Mills.
 Heart Salvage. | Sebastian.

Joan Merryweather. Post 8vo, illus-
 trated boards, 2s.

Gideon's Rock. Crown 8vo, cloth
 extra, 3s. 6d.

Science-Gossip for 1889: An
 Illustrated Medium of Interchange
 for Students and Lovers of Nature.
 Edited by Dr. J. E. TAYLOR, F.L.S., &c.
 Devoted to Geology, Botany, Phy-
 siology, Chemistry, Zoology, Micros-
 copy, Telescopy, Physiography, &c.
 Price 4d. Monthly; or 5s. per year,
 post free. Vols. I. to XIX. may be
 had at 7s. 6d. each; and Vols. XX. to
 date, at 5s. each. Cases for Binding,
 1s. 6d. each.

Seguin (L. G.), Works by:

Crown 8vo, cloth extra, 6s. each.
The Country of the Passion Play,
 and the Highlands and Highlanders
 of Bavaria. With Map and 37 Illusts.
Walke In Aiglars and its Surround-
 ings. With 2 Maps and 16 Illusts.

"Secret Out" Series, The:
 Cr. 8vo, cl. ex., Illusts., 4s. 6d. each.

The Secret Out: One Thousand
 Tricks with Cards, and other Re-
 creations; with Entertaining Experi-
 ments in Drawing-room or "White
 Magic." By W. H. CREMER. 300 Illusts.

The Art of Amusing: A Collection of
 Graceful Arts, Games, Tricks, Puzzles,
 and Charades By FRANK BELLEV.
 With 300 Illustrations.

Hanky-Panky: Very Easy Tricks,
 Very Difficult Tricks, White Magic,
 Sleight of Hand. Edited by W. H.
 CREMER. With 200 Illustrations.

Magician's Own Book: Performances
 with Cups and Balls, Eggs, Hats,
 Handkerchiefs, &c. All from actual
 Experience. Edited by W. H. CRE-
 MER. 200 Illustrations.

Senior.—By Stream and Sea.
 By W. SENIOR. Post 8vo, cl. limp, 2s. 6d.

Seven Sagas (The) of Prehis-
toric Man. By JAMES H. STODDART,
 Author of "The Village Life." Crown
 8vo, cloth extra, 6s.

Shakespeare:

The First Folio Shakespeare.—MR.
 WILLIAM SHAKESPEARE'S Comedies,
 Histories, and Tragedies. Published
 according to the true Originall Copies
 London, Printed by ISAAC IAGGARD
 and ED. BLOUNT. 1623.—A Repro-
 duction of the extremely rare original,
 in reduced facsimile, by a photogra-
 phic process—ensuring the strictest
 accuracy in every detail. Small 8vo,
 half-Roxburghe, 7s. 6d.

The Lansdowne Shakespeare. Beau-
 tifully printed in red and black, in
 small but very clear type. With
 engraved facsimile of DROESHOUT'S
 Portrait. Post 8vo, cloth extra, 7s. 6d.

Shakespeare for Children: Tales
 from Shakespeare. By CHARLES
 and MARY LAMB. With numerous
 Illustrations, coloured and plain, by
 J. MOYR SMITH. Cr. 4to, cl. gilt, 6s.

Sharp.—Children of To-mor-
row: A Novel. By WILLIAM SHARP.
 Crown 8vo, cloth extra, 6s.

Sheridan (General).—Personal
Memoirs of General P. H. Sheridan:
 The Romantic Career of a Great
 Soldier, told in his Own Words. With
 22 Portraits and other Illustrations, 27
 Maps and numerous Facsimiles of
 Famous Letters. Two Vols. of 500
 pages each, demy 8vo, cloth extra, 24s.

Shelley.—The Complete Works
In Verse and Prose of Percy Bysshe Shelley. Edited, Prefaced and Annotated by R. HERNE SHEPHERD. Five Vols., cr. 8vo, cloth bds., 3s. 6d. each.

Poetical Works, in Three Vols.

Vol. I. An Introduction by the Editor: The Posthumous Fragments of Margaret Nicholson; Shelley's Correspondence with Stockdale; The Wandering Jew (the only complete version); Queen Mab, with the Notes; Alastor, and other Poems; Rosalind and Helen; Prometheus Unbound; Adonais, &c.

Vol. II. Laon and Cythna (as originally published, instead of the emasculated "Revolt of Islam"); The Cenci; Julian and Maddalo (from Shelley's manuscript); Swellfoot the Tyrant (from the copy in the Dyce Library at South Kensington); The Witch of Atlas; Epipsychidion; Hellas.

Vol. III. Posthumous Poems, published by Mrs. SHELLEY in 1824 and 1839; The Masque of Anarchy (from Shelley's manuscript); and other Pieces not brought together in the ordinary editions.

Prose Works, in Two Vols.

Vol. I. The Two Romances of Zastrozzi and St. Irvyne; the Dublin and Marlow Pamphlets; A Refutation of Deism; Letters to Leigh Hunt, and some Minor Writings and Fragments.

Vol. II. The Essays; Letters from Abroad; Translations and Fragments, Edited by Mrs. SHELLEY, and first published in 1830, with the addition of some Minor Pieces of great interest and rarity, including one recently discovered by Professor DOWDEN. With a Bibliography of Shelley, and an exhaustive Index of the Prose Works.

Sheridan:—

Sheridan's Complete Works, with Life and Anecdotes. Including his Dramatic Writings, printed from the Original Editions, his Works in Prose and Poetry, Translations, Speeches, Jokes, Puns, &c. With a Collection of Sheridaniana. Crown 8vo, cloth extra, gilt, with 10 full-page Tinted Illustrations, 7s. 6d.

Sheridan's Comedies: The Rivals, and **The School for Scandal**. Edited, with an Introduction and Notes to each Play, and a Biographical Sketch of Sheridan, by BRANDER MATTHEWS. With Decorative Vignettes and 10 full-page Illusts. Demy 8vo, half-parchment, 12s. 6d.

Sidney's (Sir Philip) Complete Poetical Works, including all those in "Arcadia." With Portrait, Memorial-Introduction, Notes, &c., by the Rev. A. B. GROSART, D.D. Three Vols., crown 8vo, cloth boards, 18s.

Signboards: Their History. With Anecdotes of Famous Taverns and Remarkable Characters. By JACOB LARWOOD and JOHN CAMDEN HOTTEN. Crown 8vo, cloth extra, with 100 Illustrations. 7s. 6d.

Sims (George R.), Works by:

Post 8vo, illustrated boards, 2s. each; cloth limp, 2s. 6d. each.

Rogues and Vagabonds.

The Ring o' Bells.

Mary Jane's Momolrs.

Mary Jane Married.

Tales of To-day. [Shortly.]

The Dagonet Reciter and Reader: Being Readings and Recitations in Prose and Verse, selected from his own Works by G. R. SIMS. Post 8vo, portrait cover, 1s., cloth, 1s. 6d.

Sister Dora: A Biography By MARGARET LONSDALE. Popular Edition, Revised, with additional Chapter, a New Dedication and Preface, and four Illustrations. Sq. 8vo, picture cover, 4d.; cloth, 6d.

Sketchley.—A Match in the Dark. By ARTHUR SKETCHLEY. Post 8vo, illustrated boards, 2s.

Slang Dictionary, The: Etymological, Historical, and Anecdotal. Crown 8vo, cloth extra, gilt, 6s. 6d.

Smith (J. Moyr), Works by:

The Prince of Argolis: A Story of the Old Greek Fairy Time. Small 8vo, cloth extra, with 130 Illusts., 3s. 6d.

Tales of Old Thule. With numerous Illustrations. Cr. 8vo, cloth gilt, 6s.

The Wooling of the Water Witch. With Illustrations. Small 8vo, 6s.

Society in London. By A FOREIGN RESIDENT. Crown 8vo, 1s.; cloth, 1s. 6d.

Society out of Town. By A FOREIGN RESIDENT, Author of "Society in London." Crown 8vo, cloth extra, 6s. [Preparing.]

Society in Paris: The Upper Ten Thousand. By Count PAUL VASSILI. Trans. by RAPHAEL LEDOS DE BEAUFORT. Cr. 8vo, cl. ex., 6s. [Preparing.]

Somerset.—Songs of Adieu. By LORD HENRY SOMERSET. Small 4to, Japanese parchment, 6s.

Speight (T. W.), Novels by:

The Mysteries of Heron Dyke. With a Frontispiece by M. ELLEN EDWARDS. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illustrated bds., 2s.

Wife or No Wife? Cr. 8vo, picture cover, 1s.; cloth, 1s. 6d.

A Barren Title. Crown 8vo, cl., 1s. 6d.

The Golden Hoop. Post 8vo, illust. boards, 2s.

By Devious Ways; and A Barren Title. Post 8vo, illust. boards, 2s.

Spalding.—Elizabethan Demonology: An Essay in Illustration of the Belief in the Existence of Devils, and the Powers possessed by Them. By T. A. SPALDING, LL.B. Cr. 8vo, cl. ex., 5s.

Spenser for Children. By M. H. TOWRY. With Illustrations by WALTER J. MORGAN. Crown 4to, with Coloured Illustrations, cloth gilt, 6s.

Staunton.—Laws and Practice of Chess. With an Analysis of the Openings. By HOWARD STAUNTON. Edited by ROBERT B. WORMALD. Small crown 8vo, cloth extra, 5s.

Stedman (E. C.), Works by:
Victorian Poets. Thirteenth Edition. Crown 8vo, cloth extra, 9s.
The Poets of America. Crown 8vo, cloth extra, 9s.

Sterndale.—The Afghan Knife: A Novel. By ROBERT ARMITAGE STERNDALE. Cr. 8vo, cloth extra, 3s. 6d.; post 8vo, illustrated boards, 2s.

Stevenson (R. Louis), Works by:
Travels with a Donkey in the Cevennes. Sixth Ed. Frontispiece by W. CRANE. Post 8vo, cl. limp, 2s. 6d.
An Inland Voyage. Third Edition. With Frontispiece by W. CRANE. Post 8vo, cloth limp, 2s. 6d.

Familiar Studies of Men and Books. 3rd Edit. Cr. 8vo, buckram extra, 6s.

New Arabian Nights. Tenth Edition. Crown 8vo, buckram extra, 6s.; post 8vo, illustrated boards, 2s.

The Silverado Squatters. With Frontispiece. Crown 8vo, buckram extra, 6s. Cheap Edition, post 8vo, picture cover, 1s.; cloth, 1s. 6d.

Prince Otto: A Romance. Sixth Edition. Crown 8vo, buckram extra, 6s.; post 8vo, illustrated boards, 2s.

The Merry Men. Second Edition. Crown 8vo, buckram extra, 6s.

Underwoods: Poems. Fourth Edit. Crown 8vo, buckram extra, 6s.

Memories and Portraits. Second Edition. Cr. 8vo, buckram extra, 6s.

Virginibus Puerisque, and other Papers. Fourth Edition. Crown 8vo, buckram extra, 6s.

St. John.—A Levantine Family. By BAYLE ST. JOHN. Post 8vo, illustrated boards, 2s.

Stoddard.—Summer Cruising in the South Seas. By CHARLES WARREN STODDARD. Illust. by WALLIS MACKAY. Crown 8vo, cl. extra, 3s. 6d.

Stories from Foreign Novelists. With Notices of their Lives and Writings. By HELEN and ALICE ZIMMERN. Frontispiece. Crown 8vo, cloth extra, 3s. 6d.; post 8vo, illust. bds., 2s.

Strange Manuscript (A) found in a Copper Cylindor. With 19 full-page Illustrations by GILBERT GAUL. Third Edition. Cr. 8vo, cl. extra, 5s.

Strange Secrets. Told by PERCY FITZGERALD, FLORENCE MARYAT, JAMES GRANT, A. CONAN DOYLE, DUTTON COOK, and others. With 8 Illustrations by Sir JOHN GILBERT, WILLIAM SMALL, W. J. HENNESSY, &c. Crown 8vo, cloth extra, 6s.

Strutt's Sports and Pastimes of the People of England; including the Rural and Domestic Recreations, May Games, Mummeries, Shows, &c., from the Earliest Period to the Present Time. With 140 Illustrations. Edited by WM. HONE. Cr. 8vo, cl. extra, 7s. 6d.

Suburban Homes (The) of London: A Residential Guide to Favourite London Localities, their Society, Celebrities, and Associations. With Notes on their Rental, Rates, and House Accommodation. With Map of Suburban London. Cr. 8vo, cl. ex., 7s. 6d.

Swift's Choice Works, in Prose and Verse. With Memoir, Portrait, and Facsimiles of the maps in the Original Edition of "Gulliver's Travels." Cr. 8vo, cloth extra, 7s. 6d.

Swinburne (Algernon C.), Works by:

Selections from the Poetical Works of Algernon Charles Swinburne. Fcap. 8vo, cloth extra, 6s.

Atalanta in Calydon. Crown 8vo, 6s.

Chastelard: A Tragedy. Cr. 8vo, 7s.

Poems and Ballads. FIRST SERIES. Cr. 8vo, 9s. Fcap. 8vo, same price.

Poems and Ballads. SECOND SERIES. Cr. 8vo, 9s. Fcap. 8vo, same price.

Poems and Ballads. THIRD SERIES. Crown 8vo, 7s.

Notes on Poems and Reviews. 8vo, 1s.

Songs before Sunrise. Cr. 8vo, 10s. 6d.

Bothwell: A Tragedy. Cr. 8vo, 12s. 6d.

George Chapman: An Essay. (See Vol. II. of GEO. CHAPMAN'S WORKS.) Crown 8vo, 6s.

Songs of Two Nations. Cr. 8vo, 6s.

Essays and Studies. Crown 8vo, 12s.

Erechtheus: A Tragedy. Cr. 8vo, 6s.

Songs of the Springtides. Cr. 8vo, 6s.

Studies in Song. Crown 8vo, 7s.

Mary Stuart: A Tragedy. Cr. 8vo, 8s.

Tristram of Lyonesse, and other Poems. Crown 8vo, 9s.

A Century of Roundels. Small 4to, 8s.

A Midsummer Holiday, and other Poems. Crown 8vo, 7s.

Marino Fallero: A Tragedy. Cr. 8vo, 6s.

A Study of Victor Hugo. Cr. 8vo, 6s.

Miscellanies. Crown 8vo, 12s.

Locrine: A Tragedy. Crown 8vo, 6s.

Symonds.—Wine, Women, and Song: Mediæval Latin Students' Songs. Now first translated into English Verse, with Essay by J. ADDINGTON SYMONDS. Small 8vo, parchment, 6s.

Syntax's (Dr.) Three Tours: In Search of the Picturesque, in Search of Consolation, and in Search of a Wife. With the whole of ROWLANDSON'S droll page Illustrations in Colours and a Life of the Author by J. C. HOTTEN. Med. 8vo, cloth extra, 7s. 6d.

Taine's History of English Literature. Translated by HENRY VAN LAUN. Four Vols., small 8vo, cloth boards, 30s.—POPULAR EDITION, Two Vols., crown 8vo, cloth extra, 16s.

Taylor's (Bayard) Diversions of the Echo Club: Burlesques of Modern Writers. Post 8vo, cl. limp, 2s.

Taylor (Dr. J. E., F.L.S.), Works by. Crown 8vo, cloth ex., 7s. 6d. each.

The Sagacity and Morality of Plants: A Sketch of the Life and Conduct of the Vegetable Kingdom. Coloured Frontispiece and 100 Illust.

Our Common British Fossils, and Where to Find Them: A Handbook for Students. With 331 Illustrations.

The Playtime Naturalist. With 366 Illustrations. Crown 8vo, cl. ex., 6s.

Taylor's (Tom) Historical Dramas: "Clancarty," "Jeanne Darc," "Twixt Axe and Crown," "The Fool's Revenge," "Arkwright's Wife," "Anne Boleyn," "Plot and Passion." One Vol., cr. 8vo, cloth extra, 7s. 6d.
* * * The Plays may also be had separately, at 1s. each.

Tennyson (Lord): A Biographical Sketch. By H. J. JENNINGS. With a Photograph-Portrait. Crown 8vo, cloth extra, 6s.

Thackerayana: Notes and Anecdotes. Illustrated by Hundreds of Sketches by WILLIAM MAKEPEACE THACKERAY, depicting Humorous Incidents in his School-life, and Favourite Characters in the books of his every-day reading. With Coloured Frontispiece. Cr. 8vo, cl. extra, 7s. 6d.

Thames.—A New Pictorial History of the Thames, from its Source Downwards. A Book for all Boating Men and for all Lovers of the River. With over 300 Illusts. Post 8vo, picture cover, 1s.; cloth, 1s. 6d. [Preparing.]

Thomas (Bertha), Novels by: Crown 8vo, cloth extra, 3s. 6d. each post 8vo, illustrated boards, 2s. each.
Cressida. | **Proud Maisie**
The Violin Player

Thomas (M.).—A Fight for Life: A Novel. By W. MOY THOMAS. Post 8vo, illustrated boards, 2s.

Thomson's Seasons and Castle of Indolence. With a Biographical and Critical Introduction by ALLAN CUNNINGHAM, and over 50 fine Illustrations on Steel and Wood. Crown 8vo, cloth extra, gilt edges, 7s. 6d.

Thornbury (Walter), Works by: Crown 8vo, cloth extra, 7s. 6d. each.

Haunted London. Edited by EDWARD WALFORD, M.A. With Illustrations by F. W. FAIRHOLT, F.S.A.

The Life and Correspondence of J. M. W. Turner. Founded upon Letters and Papers furnished by his Friends and fellow Academicians. With numerous Illusts. in Colours, facsimiled from Turner's Original Drawings.

Post 8vo, illustrated boards, 2s. each.

Old Stories Re-told.

Tales for the Marines.

Timbs (John), Works by:

Crown 8vo, cloth extra, 7s. 6d. each.

The History of Clubs and Club Life in London. With Anecdotes of its Famous Coffee-houses, Hostelrys, and Taverns. With many Illusts.

English Eccentricities and Eccentricities: Stories of Wealth and Fashion, Delusions, Impostures, and Fanatic Mission, Strange Sights and Sporting Scenes, Eccentric Artists, Theatrical Folk, Men of Letters, &c. With nearly 50 Illusts

Trollope (Anthony), Novels by:

Crown 8vo, cloth extra, 3s. 6d. each post 8vo, illustrated boards, 2s. each.

The Way We Live Now.

Kept in the Dark.

Frau Frohmann. | **Marlon Fay.**

Mr. Scarborough's Family.

The Land Leaguers.

Post 8vo, illustrated boards, 2s. each.

The Golden Lion of Granpere.

John Caldwellgate. | **Amerlean Senator**

Trollope (Frances E.), Novels by

Crown 8vo, cloth extra, 3s. 6d. each; post 8vo, illustrated boards, 2s. each.

Like Ships upon the Sea.

Mabel's Progress. | **Anne Furness.**

Trollope (T. A.).—Diamond Cut

Diamond, and other Stories. By T. ADOLPHUS TROLLOPE. Post 8vo, illustrated boards, 2s.

Trowbridge.—Farnell's Folly:

A Novel. By J. T. TROWBRIDGE. Post 8vo, illustrated boards, 2s.

Turgenieff. — Stories from Foreign Novellists. By IVAN TURGENIEFF, and others. Cr. 8vo, cloth extra, 3s. 6d.; post 8vo, illustrated boards, 2s.

Tytler (C. C. Fraser). — Mistress Judith: A Novel. By C. C. FRASER-TYTLER. Cr. 8vo, cloth extra, 3s. 6d.; post 8vo, illust. boards, 2s.

Tytler (Sarah), Novels by:
Crown 8vo, cloth extra, 3s. 6d. each;
post 8vo, illustrated boards, 2s. each.
What She Came Through.
The Bride's Pass. | Noblesse Oblige.
Saint Mungo's City. | Lady Bell.
Beauty and the Beast.
Citoyenne Jacqueline.
Buried Diamonds.
Post 8vo, illustrated boards, 2s. each.
Disappeared.
The Huguenot Family.
The Blackhall Ghosts: A Novel.
Crown 8vo, cl. ex., 3s. 6d.

Van Laun. — History of French Literature. By H. VAN LAUN. Three Vols., demy 8vo, cl. bds., 7s. 6d. each.

Villari. — A Double Bond: A Story. By LINNA VILLARI. Fcap. 8vo, picture cover, 1s.

Walford (Edw., M.A.), Works by:

The County Families of the United Kingdom (1889). Containing Notices of the Descent, Birth, Marriage, Education, &c., of more than 12,000 distinguished Heads of Families, their Heirs Apparent or Presumptive, the Offices they hold or have held, their Town and Country Addresses, Clubs, &c. Twenty-ninth Annual Edition. Cloth gilt, 50s.

The Shilling Peerage (1889). Containing an Alphabetical List of the House of Lords, Dates of Creation, Lists of Scotch and Irish Peers, Addresses, &c. 32mo, cloth, 1s.

The Shilling Baronetage (1889). Containing an Alphabetical List of the Baronets of the United Kingdom, short Biographical Notices, Dates of Creation, Addresses, &c. 32mo, cl., 1s.

The Shilling Knightage (1889). Containing an Alphabetical List of the Knights of the United Kingdom, short Biographical Notices, Dates of Creation, Addresses, &c. 32mo, cl., 1s.

The Shilling House of Commons (1889). Containing a List of all the Members of Parliament, their Town and Country Addresses, &c. 32mo, cloth, 1s.

The Complete Peerage, Baronetage, Knightage, and House of Commons (1889). In One Volume, royal 32mo, cloth extra, gilt edges, 5s.

WALFORD'S (EDW.) WORKS, continued—
Haunted London. By WALTER THORNBURY. Edited by EDWARD WALFORD, M.A. With Illustrations by F. W. FAIRHOLT, F.S.A. Crown 8vo, cloth extra, 7s. 6d.

Walton and Cotton's Complete Angler; or, The Contemplative Man's Recreation; being a Discourse of Rivers, Fishponds, Fish and Fishing, written by IZAAK WALTON; and Instructions how to Angle for a Trout or Grayling in a clear Stream, by CHARLES COTTON. With Original Memoirs and Notes by Sir HARRIS NICOLAS, and 6r Copperplate Illustrations. Large crown 8vo, cloth antique, 7s. 6d.

Walt Whitman, Poems by. Selected and edited, with an Introduction, by WILLIAM M. ROSSETTI. A New Edition, with a Steel Plate Portrait. Crown 8vo, printed on handmade paper and bound in buckram, 6s.

Wanderer's Library, The:

Crown 8vo, cloth extra, 3s. 6d. each.
Wanderings in Patagonia; or, Life among the Ostrich-Hunters. By JULIUS BEERBOHM. Illustrated.

Camp Notes: Stories of Sport and Adventure in Asia, Africa, and America. By FREDERICK BOYLE.

Savage Life. By FREDERICK BOYLE.
Merrie England in the Olden Time
By GEORGE DANIEL. With Illustrations by ROBT. CRUIKSHANK.

Circus Life and Circus Celebrities
By THOMAS FROST.

The Lives of the Conjurors. By THOMAS FROST.

The Old Showmen and the Old London Fairs. By THOMAS FROST.
Low-Life Deeps. An Account of the Strange Fish to be found there. By JAMES GREENWOOD.

The Wilds of London. By JAMES GREENWOOD.

Tunis: The Land and the People. By the Chevalier de HESSE-WARTEGG. With 22 Illustrations.

The Life and Adventures of a Cheap Jack. By One of the Fraternity. Edited by CHARLES HINNLEY.

The World Behind the Scenes. By PERCY FITZGERALD.

Tavern Anecdotes and Sayings. Including the Origin of Signs, and Reminiscences connected with Taverns, Coffee Houses, Clubs, &c. By CHARLES HINDLEY. With Illusts.

The Genial Showman: Life and Adventures of Artemus Ward. By E. P. HINGSTON. With a Frontispiece.

The Story of the London Parks. By JACOB LARWOOD. With Illusts.

London Characters. By HENRY MAYHEW. Illustrated.

WANDERER'S LIBRARY, *THIR*, continued—
Crown 8vo, cloth extra, 3s. 6d. each.

Seven Generations of Executioners:
Memoirs of the Sanson Family (1688
to 1847). Edited by HENRY SANSON.

**Summer Cruising In the South
Seas** By C. WARREN STODDARD.
Illustrated by WALLIS MACKAY

Warner.—A Roundabout Jour-
ney. By CHARLES DUDLEY WARNER,
Author of "My Summer in a Garden."
Crown 8vo, cloth extra, 6s.

Warrants, &c. :—

Warrant to Execute Charles I. An
exact Facsimile, with the Fifty-nine
Signatures, and corresponding Seals.
Carefully printed on paper to imitate
the Original, 22 in. by 14 in. Price 2s.

**Warrant to Execute Mary Queen of
Scots.** An exact Facsimile, includ-
ing the Signature of Queen Eliza-
beth, and a Facsimile of the Great
Seal. Beautifully printed on paper
to imitate the Original MS. Price 2s.

Magna Charta. An exact Facsimile
of the Original Document in the
British Museum, printed on fine
plate paper, nearly 3 feet long by 2
feet wide, with the Arms and Seals
emblazoned in Gold and Colours. 5s.

The Roll of Battle Abbey; or, A List
of the Principal Warriors who came
over from Normandy with William
the Conqueror, and Settled in this
Country, A.D. 1066-7. With the
principal Arms emblazoned in Gold
and Colours. Price 5s.

Wayfarer, The: Journal of the
Society of Cyclists. Published at in-
tervals. Price 1s. The Numbers for
OCT., 1886, JAN., MAY, and OCT., 1887,
and FEB., 1888, are now ready.

Weather, How to Foretell the,
with the Pocket Spectroscope. By
F. W. CORY, M.R.C.S. Eng., F.R.Met.
Soc., &c. With 10 Illustrations. Crown
8vo, 1s.; cloth, 1s. 6d.

Westropp.—Handbook of Pot-
tery and Porcelain; or, History of
those Arts from the Earliest Period.
By HODGER M. WESTROPP. With nu-
merous Illustrations, and a List of
Marks. Crown 8vo, cloth limp, 4s. 6d.

Whist.—How to Play Solo
Whist. Its Method and Principles
Explained, and its Practice Demon-
strated. With Illustrative Specimen
Hands in red and black, and a Revised
and Augmented Code of Laws. By
ABRAHAM S. WILKS and CHARLES F.
PARDON. Crown 8vo, cloth extra, 3s. 6d.

Whistler's (Mr.) "Ten o'Clock."
Crown 8vo, hand-made and brown
paper, 1s.

Williams (W. Mattieu, F.R.A.S.),
Works by:

Science In Short Chapters. Crown
8vo, cloth extra, 7s. 6d.

A Simple Treatise on Heat. Crown
8vo, cloth limp, with Illusts., 2s. 6d.

The Chemistry of Cookery. Crown
8vo, cloth extra, 6s.

Wilson (Dr. Andrew, F.R.S.E.),
Works by:

**Chapters on Evolution: A Popular
History of Darwinian and Allied
Theories of Development.** 3rd ed.
Cr. 8vo, cl. ex., with 259 Illusts., 7s. 6d.

**Leaves from a Naturalist's Note-
book.** Post 8vo, cloth limp, 2s. 6d.

Lecture Time Studies, chiefly Bio-
logical. Third Edit., with New Pre-
face. Cr. 8vo, cl. ex., with Illusts., 6s.

Studies In Life and Sense. With
numerous Illusts. Cr. 8vo, cl. ex., 6s

**Common Accidents, and How to
Treat them.** By DR. ANDREW WIL-
SON and others. With numerous Il-
lusts. Cr. 8vo, 1s.; cl. limp, 1s. 6d.

Winter (J. S.), Stories by:

Post 8vo, illustrated boards, 2s. each.

Cavalry Life. | **Regimental Legends.**

**Women of the Day: A Biogra-
phical Dictionary of Notable Contem-
poraries.** By FRANCES HAYS. Crown
8vo, cloth extra, 5s.

Wood.—Sabina: A Novel. By
Lady Wood. Post 8vo, illust. mds., 2s.

Wood (H.F.), Detective Stories:
The Passenger from Scotland Yard.
Crown 8vo, cloth extra, 6s.; post 8vo,
illustrated boards, 2s.

The Englishman on the Rue Can.
Crown 8vo, cloth extra, 6s.

Woolley.—Rachel Armstrong;
or, Love and Theology. By CELIA
PARKER WOOLLEY. Post 8vo, illus-
trated boards, 2s.; cloth, 2s. 6d.

Words, Facts, and Phrases:
A Dictionary of Curious, Quaint, and
Out-of-the-Way Matters. By ELIEZER
EDWARDS. New and cheaper issue,
cr. 8vo, cl. ex., 7s. 6d.; half-bound, 9s.

Wright (Thomas), Works by:
Crown 8vo, cloth extra, 7s. 6d. each.

Caricature History of the Georges.
(The House of Hanover.) With 400
Pictures, Caricatures, Squibs, Broad-
sides, Window Pictures, &c.

**History of Caricature and of the
Grotesque In Art, Literature,
Sculpture, and Painting.** Profusely
Illustrated by F.W. FAIRHOLT, F.S.A.

Yates (Edmund), Novels by:

Post 8vo, illustrated boards, 2s. each.
Land at Last. | **The Forlorn Hope.**

NEW NOVELS.

Blood-Money, and other Stories. By CHARLES GIBBON. 2 Vols., crown 8vo, cloth, 12s.

A Strango Manuscript found in a Copper Cylinder. Illustrated by GILBERT GAUL. Third Edit. Cr. 8vo, 5s.

The Legacy of Cain. By WILKIE COLLINS. 3 Vols., cr. 8vo.

For Faith and Freedom. By WALTER BESANT. 3 Vols., cr. 8vo.

The Englishman of the Rue Cain. By H. F. WOOD. Crown 8vo, cloth extra, 6s.

Romances of the Law. By R. E. FRANCILLON. Cr. 8vo, cloth extra, 6s.

Strange Secrets. Told by PERCY FITZGERALD, &c. With 8 Illustrations. Crown 8vo, cloth extra, 6s.

Doctor Rameau. By GEORGES ORNET. Nine Illusts. Cr. 8vo, cloth extra, 6s.

This Mortal Coll. By GRANT ALLEN. 3 Vols., crown 8vo.

Agatha Page. By ISAAC HENDERSON. 2 Vols., crown 8vo.

Chance? or Fate? By ALICE O'HANLON. 3 vols., crown 8vo.

Children of To-morrow. By WILLIAM SHARP. Crown 8vo, cloth extra, 6s.

Nikanor. From the French of HENRI GREVILLE. With Eight Illustrations. Crown 8vo, cloth extra, 6s.

Mr. Stranger's Sealed Packet. By HUGH MACCOLL. Crown 8vo, cloth extra, 5s.

Gulderoy. By OUIDA. 3 Vols., crown 8vo. [June.]

THE PICCADILLY NOVELS.

Popular Stories by the Best Authors. LIBRARY EDITIONS, many Illustrated, crown 8vo, cloth extra, 3s. 6d. each.

BY THE AUTHOR OF "JOHN HERRING."

Red Spider. | Eve.

BY GRANT ALLEN.

Phyllis.

For Maimie's Sake.

The Devil's Die.

BY WALTER BESANT & J. RICE.

Ready-Money Mortiboy.

My Little Girl.

The Case of Mr. Lucraft.

This Son of Vulcan.

With Harp and Crown.

The Golden Butterfly.

By Cella's Arbour.

The Monks of Thelema.

'Twas in Trafalgar's Bay.

The Seamy Side.

The Ten Years' Tenant.

The Chaplain of the Fleet.

BY WALTER BESANT.

All Sorts and Conditions of Men.

The Captains' Room.

All in a Garden Fair.

Dorothy Forster. | Uncle Jack.

Children of Gibeon.

The World Went Very Well Then.

Herr Paulus.

BY ROBERT BUCHANAN.

A Child of Nature.

God and the Man.

The Shadow of the Sword.

The Martyrdom of Madeline.

Love Me for Ever.

Annan Water.

Matt.

The Master of the Mine.

The Helm of Linne.

BY HALL CAINE.

The Shadow of a Crime.

A Son of Hagar. | The Deemster.

BY MRS. H. LOVETT CAMERON.
Juliet's Guardian. | Deceivers Ever.

BY MORTIMER COLLINS.

Sweet Anne Page. | Transmigration.

From Midnight to Midnight.

MORTIMER & FRANCES COLLINS.

Blacksmith and Scholar.

The Village Comedy.

You Play me False.

BY WILKIE COLLINS.

Antonina.

Basil.

Hide and Seek.

The Dead Secret.

Queen of Hearts.

My Miscellanies.

Woman in White.

The Moonstone.

Man and Wife.

Poor Miss Finch.

Miss or Mrs. P.

New Magdalen.

The Frozen Deep.

The Law and the

Lady.

The Two Destinies

Haunted Hotel.

The Fallen Leaves

Jezebel's Daughter

The Black Robe.

Heart and Selence

"I Say No."

Little Novels.

The Evil Genius.

BY DUTTON COOK.

Paul Foster's Daughter.

BY WILLIAM CYPLES.

Hearts of Gold.

BY ALPHONSE DAUDET.

The Evangelist; or, Port Salvation.

BY JAMES DE MILLE.

A Castle in Spain.

BY J. LEITH DERWENT.

Our Lady of Tears.

Circe's Lovers.

BY M. BETHAM-EDWARDS.

Felicia.

BY MRS. ANNIE EDWARDES.

Archie Lovell.

BY PERCY FITZGERALD.

Fatal Zero.

PICCADILLY NOVELS, *continued*—

BY R. E. FRANCILLON.

Queen Cophotua.

Ono by Ono.

A Real Queen.

King or Knave?

Prefaced by Sir BARTLE FRERE.

Pandurang Hari.

BY EDWARD GARRETT.

The Chapel Girls.

BY CHARLES GIBBON.

Robin Gray.

What will the World Say?

In Honour Bound.

Queen of the Meadow.

The Flower of the Forest.

A Heart's Problem.

The Braes of Yarrow.

The Golden Shaft.

Of High Degree.

Loving a Dream.

BY THOMAS HARDY.

Under the Greenwood Tree.

BY JULIAN HAWTHORNE.

Garth.

Ellice Quentlin.

Sebastian Strome.

Dust.

Fortune's Fool.

Beatrice Randolph.

David Polindexter's Disappearance

The Spectre of the Camera.

BY SIR A. HELPS.

Ivan de Biron.

BY MRS. ALFRED HUNT

Thornicroft's Model.

The Leaden Casket.

Self Condemned.

That other Person.

BY JEAN INGELow.

Fated to be Free.

BY R. ASHE KING.

A Drawn Game.

"The Wearing of the Green."

BY HENRY KINGSLEY.

Number Seventeen.

BY E. LYNN LINTON.

Patricia Kemball.

Atonement of Leam Dundas.

The World Well Lost.

Under which Lord?

"My Love!"

Ione.

Paston Carew.

BY HENRY W. LUCY.

Gideon Fleece.

BY JUSTIN McCARTHY.

The Waterdale Neighbours.

A Fair Saxon.

Dear Lady Disdain.

Miss Misanthrope.

Donna Quixote.

The Comet of a Season.

Maid of Athens.

Camila.

PICCADILLY NOVELS, *continued*—

BY MRS. MACDONELL.

Quaker Cousins.

BY FLORENCE MARRYAT.

Open! Sesame! | Written in Fire

BY D. CHRISTIE MURRAY.

Life's Atonement. | Coals of Fire.

Joseph's Coat. | Val Strango.

A Model Father. | Hearts.

By the Gate of the Sea.

A Bit of Human Nature.

First Person Singular.

Cynic Fortune.

BY MRS. OLIPHANT.

Whiteladies.

BY OUIDA.

Held in Bondage. | Two Little Wooden

Strathmore. | Shoes.

Chandos. | In a Winter Cit

Under Two Flags. | Ariadne.

Idalia. | Friendship.

Cecil Castle- | Moths.

malne's Gage. | Piplistrello.

Tricolrin. | A Village Com-

Puck. | mune.

Folle Farine. | Bimbi.

A Dog of Flanders | Wanda.

Pascarel. | Frescoes.

Signa. | In Maremma

Princess Naprax. | Othman.

BY MARGARET A. PAUL.

Gentle and Simple.

BY JAMES PAYN.

Lost Sir Massing. | A Grapo from a

berd. | Thorn.

Walter's Word. | Some Private

Less Black than | Views.

We're Painted. | The Canon's Ward

By Proxy. | Talk of the Town.

High Spirits. | Glow-worm Tales.

Under One Roof. | In Peril and Pri-

A Confidential | vation.

Agent. | Holiday Tasks.

From Exile. | The Mystery of

Mirbridge.

BY E. C. PRICE.

Valentina. | The Foreigners.

Mrs. Lancaster's Rival.

BY CHARLES READE.

It is Never Too Late to Mend.

Hard Cash. | Peg Woffington.

Christie Johnstone.

Griffith Gaunt. | Foul Play.

The Double Marriage.

Love Me Little, Love Me Long.

The Cloister and the Hearth.

The Course of True Love.

The Autobiography of a Thief.

Put Yourself in His Place.

A Terrible Temptation

The Wanderling Heir. | A Simpleton.

A Woman-Hater. | Readiana.

Singleheart and Doubleface.

The Jilt.

Good Stories of Men and other

Animals.

PICCADILLY NOVELS, continued—

BY MRS. J. H. RIDDELL.

Her Mother's Darling.
Prince of Wales's Garden Party.
Weird Stories.

BY F. W. ROBINSON.

Women are Strange.
The Hands of Justice.

BY JOHN SAUNDERS.

Bound to the Wheel.
Guy Waterman. | Two Dreamers.
The Lion in the Path.

BY KATHARINE SAUNDERS.

Margaret and Elizabeth.
Gideon's Rock. | Heart Salvage.
The High Mills. | Sebastian.

BY T. W. SPEIGHT.

The Mysteries of Heron Dyke.

BY R. A. STERNDAL.

The Aignan Knot.

BY KERTHA THOMAS.

Proud Maisie. | Cressida.

The Violin-Player

PICCADILLY NOVELS, continued—

BY ANTHONY TROLLOPE.

The Way we Live Now.
Frau Frohmann. | Marlon Fay.
Kept in the Dark.
Mr. Scarborough's Family.
The Land Leaguers.

BY FRANCES E. TROLLOPE.

Like Ships upon the Sea.
Anne Furness. | Mabel's Progress.

BY IVAN TURGENIEFF, &c.

Stories from Foreign Novelists.

BY SARAH TYTLER.

What She Came Through.
The Byldc's Pass. | Saint Mungo's City.
Beauty and the Beast.
Noblesse Oblige.
Citoyenne Jacquelline.
Lady Bell. | Buried Diamonds.
The Blackhall Ghosts.

BY C. C. FRASER-TYTLER.

Mistress Judith.

CHEAP EDITIONS OF POPULAR NOVELS.

10s 8vo, illustrated boards, 2s. each.

BY THE AUTHOR OF "MEHALAH."

Red Spider.

BY EDMOND ABOUT.

The Fellah.

BY HAMILTON AÏDÉ.

Carr of Carrlyon. | Confidences.

BY MRS. ALEXANDER.

Maid Wife, or Widow?

Valerie's Fate.

BY GRANT ALLEN.

Strange Stories.

Phillistia.

Babylon.

In all Shades.

The Beckoning Hand.

For Maimie's Sake.

BY SHELSLEY BEAUCHAMP.

Grantley Grange.

BY WALTER BESANT & J. RICE.

Ready-Money Mortiboy.

With Harp and Crown.

This Son of Vulcan. | My Little Girl.

The Case of Mr. Lucraft.

The Golden Butterfly.

By Cella's Arbour

The Monks of Thelema.

'Twas in Trafalgar's Bay.

The Seamy Side.

The Ten Years' Tenant.

The Chaplain of the Fleet.

BY WALTER BESANT.

All Sorts and Conditions of Men.

The Captains' Room.

All in a Garden Fair.

Dorothy Forster.

Uncle Jack.

Children of Gibeon.

The World Went Very Well Then.

BY FREDERICK BOYLE.

Camp Notes. | Savage Life.

Chronicles of No-man's Land.

BY BRET HARTE.

An Hellress of Red Dog.

The Luck of Roaring Camp.

Californian Stories.

Gabriel Conroy. | Filp.

Maruja. | A Phyllis of the Sierras.

BY HAROLD BRYDGES.

Uncle Sam at Home.

BY ROBERT BUCHANAN.

The Shadow of the Sword. | The Martyrdom
of Madeline.

A Child of Nature. | Annan Water.

God and the Man. | The New Abelard.

Love Me for Ever. | Matt.

Foxglove Manor. | The Heiress of Linne.

The Master of the Mine.

BY MRS. BURNETT.

Surly Tim.

BY HALL CAINE.

The Shadow of a Crime.

A Son of Hagar. | The Deemster.

BY COMMANDER CAMERON.

The Cruise of the "Black Prince."

BY MRS. LOVETT CAMERON.

Deceivers Ever. | Juliet's Guardian.

BY MACLAREN COBBAN.

The Cure of Souls.

BY C. ALLSTON COLLINS.

The Bar Sinister.

BY WILKIE COLLINS.

Antonina.

East.

Hide and Seek.

The Dead Secret.

Queen of Hearts.

My Miscellanies.

Woman in White.

The Moonstone.

Man and Wife.

Poor Miss Finch

CHEAP POPULAR NOVELS, continued—

WILKIE COLLINS, continued.

Miss or Mrs.?	The Fallen Leaves.
New Magdalen.	Jezebel's Daughter
The Frozen Deep.	The Black Robe.
The Law and the Lady.	Heart and Science
The Two Destinies	"I Say No."
Haunted Hotel.	The Evil Genius.
	Little Novels.

BY MORTIMER COLLINS.

Sweet Ann Page.	From Midnight to Transmigration.
	Midnight.

A Fight with Fortune.

MORTIMER & FRANCES COLLINS.

Sweet and Twenty. | Frances.

Blacksmith and Scholar.

The Village Comedy.

You Play me False.

BY M. J. COLQUHOUN.

Every Inch a Soldier.

BY MONCURE D CONWAY.

Pine and Palm.

BY DUTTON COOK.

Lco. | Paul Foster's Daughter.

BY C. EGBERT CRADDOCK.

The Prophet of the Great Smoky Mountains.

BY WILLIAM CYPLES.

Hearts of Gold.

BY ALPHONSE DAUDET.

The Evangelist; or, Port Salvation.

BY JAMES DE MILLE.

A Castle in Spain.

BY J. LEITH DERWENT.

Our Lady of Tears. | Circe's Lovers.

BY CHARLES DICKENS.

Sketches by Boz. | Oliver Twist.

Pickwick Papers. | Nicholas Nickleby

BY DICK DONOVAN.

The Man-Hunter.

Caught at Last!

BY MRS. ANNIE EDWARDES.

Point of Honour. | Archie Lovell.

BY M. BETHAM-EDWARDS.

Felicia.

Kitty.

BY EDWARD EGGLESTON.

Roxy.

BY PERCY FITZGERALD.

Bella Donna. | Never Forgotten.

The Second Mrs. Tillotson.

Polly. | Fatal Zero.

Seventy-five Brooke Street.

The Lady of Brantome.

BY ALBANY DE FONBLANQUE.

Filthy Lucre.

BY R. E. FRANCILLON.

Olympia.

Queen Cophtetua.

One by One.

A Real Queen.

BY HAROLD FREDERIC.

Seth's Brother's Wife.

Prefaced by Sir H. BARTLE FRERE.

Pandurang Hari.

BY HAIN FRISWELL.

One of Two.

BY EDWARD GARRETT.

The Caneel Girls.

CHEAP POPULAR NOVELS, continued—

BY CHARLES GIBBON.

Robin Gray.	The Flower of the Forest.
For Lack of Gold.	
What will the World Say?	Braes of Yarrow.
In Honour Bound.	The Golden Shaft.
In Love and War.	Of High Degree.
For the King.	Fancy Free.
In Pastures Green	Mead and Stream.
Queen of the Meadow.	Loving a Dream.
	A Hard Knot.
	Heart's Delight

A Heart's Problem

BY WILLIAM GILBERT.

Dr. Austin's Guests. | James Duke.

The Wizard of the Mountain.

BY JAMES GREENWOOD.

Dick Temple.

BY JOHN HABBERTON.

Buckton's Bayou. | Country Luck.

BY ANDREW HALLIDAY

Every Day Papers.

BY LADY DUFFUS HARDY.

Paul Wynter's Sacrifice.

BY THOMAS HARDY.

Under the Greenwood Tree.

BY J. BERWICK HARWOOD.

The Tenth Earl.

BY JULIAN HAWTHORNE.

Garth.

Sebastian Strome

Ellice Quantin

Dust.

Prince Saroni's Wife.

Fortune's Fool. | Batrix Randolph.

Miss Cadogna. | Love—or a Name.

David Poindexter's Disappearance.

BY SIR ARTHUR HELPS.

Ivan de Blon.

BY MRS. CASHEL HOEY.

The Lover's Creed.

BY TOM HOOD.

A Golden Heart.

BY MRS. GEORGE HOOPER.

The House of Raby.

BY TIGHE HOPKINS.

'Twixt Love and Duty.

BY MRS. ALFRED HUNT.

Thornicroft's Model.

The Leaden Casket.

Self Condemned. | That other Person

BY JEAN INGELow.

Fated to be Free.

BY HARRIETT JAY.

The Dark Colleen.

The Queen of Connaught.

BY MARK KERSHAW.

Colonial Facts and Fictions.

BY R. ASHE KING.

A Drawn Game.

"The Wearing of the Green."

BY HENRY KINGSLEY.

Oakshott Castle

BY JOHN LEYS.

The Lindsays.

BY MARY LINSKILL.

In Exchange for a Soul.

BY E. LYNN LINTON.

Patricia Kembail.

The Atonement of Leam Dundas.

CHEAP POPULAR NOVELS, continued—

E. LYNN LINTON, continued—

The World Well Lost.
Under which Lord P Paston Carew.
With a Silken Thread.
The Rebel of the Family.
"My Love." | Ione.

BY HENRY W. LUCY.

Gideon Fleyee.

BY JUSTIN MCCARTHY.

Dear Lady Disdain	Miss Misanthrope
The Waterdale	Donna Quixote.
Neighbours.	The Coniet of a
My Enemy's	Season.
Daughter.	Maid of Athens.
A Fair Saxon.	Camila.
Linley Rochford.	

BY MRS. MACDONELL.

Quaker Cousins.

BY KATHARINE S. MACQUOID.

The Evil Eye. | Lost Rose.

BY W. H. MALLOCK.

The New Republic.

BY FLORENCE MARRYAT.

Open! Sesame.	Fighting the Air.
A Harvest of Wild	Written in Fire.
Oats.	

BY J. MASTERMAN.

Half-a-dozen Daughters.

BY BRANDER MATTHEWS.

A Secret of the Sea.

BY JEAN MIDDLEMASS.

Touch and Go. | Mr. Dorillon.

BY MRS. MOLESWORTH.

Hathereourt Rectory.

BY J. E. MUDDOCK.

Stories Weird and Wonderful.

BY D. CHRISTIE MURRAY.

ALife's Atonement	Hearts.
A Model Father.	Way of the World.
Joseph's Coat.	A Bit of Human
Coals of Fire.	Nature.
By the Gate of the	First Person Sin-
val Strange [Sea.	gular.
Old Blazer's Hero.	Cynic Fortune.

BY ALICE O'HANLON.

The Unforeseen.

BY MRS. OLIPHANT.

Whiteladies. | The Primrose Path.

The Greatest Heiress in England.

BY MRS. ROBERT O'REILLY.

Phœbe's Fortunes.

BY OUIDA.

Held in Bondage.	Two Little Wooden
Strathmore.	Shoes.
Chandos.	Ariadne.
Under Two Flags.	Friendship.
Idalia.	Moths.
Cecil Castle-	Pipistrello.
malne's Gage.	A Village Com-
Trileotrin Puck.	mune.
Folle Farline.	Bimbi. Wanda.
A Dog of Flanders.	Freseoes.
Pascarel.	In Maremma.
Signa. [Ine.	Othmar.
Princess Naprax-	Wisdom, Wit, and
In a Winter City	Pathos.

CHEAP POPULAR NOVELS, continued—

BY MARGARET AGNES PAUL.

Gentle and Simple.

BY JAMES PAYN.

Lost Sir Mässing-	Marline Residence.
berd.	Married Boncati.
APERfect Treasure	Him.
Bentlnok's Tutor.	Mirk Abby.
Murphy's Master.	Not Wooded, but
A County Family.	Won.!
At Her Merey.	Less Black than
A Woman's Ven-	We're Painted.
geance.	By Proxy.
Cecil's Tryst.	Under One Roof.
Clyffards of Clyffe	High Spirits.
The Family Seape-	Carlyon's Year.
grace.	A Confidential
Foster Brothers.	Agent.
Found Dead.	Some Private
Best of Husbands.	Views.
Walter's Word.	From Exlle.
Halves.	A Grape from a
Fallen Fortunes.	Thorn.
What He Cost Her	For Cash Only.
Humorous Stories	Kit: A Memory.
Gwendoline's Har-	The Canon's Ward
vest.	Talk of the Town.
£200 Reward.	Holiday Tasks.
Like Father, Like	Glow-worm Tales.
Son.	

BY C. L. PIRKIS.

Lady Lovelace.

BY EDGAR A. POE.

The Mystery of Marle Roget.

BY E. C. PRICE.

Valentina.	The Foreigners
Mrs. Lancaster's Rival.	
Gerald.	

BY CHARLES READE.

It is Never Too Late to Mend.
Hard Cash. | Peg Woffington
Christie Johnstone.
Griffith Gaunt.
Put Yourself in His Place.
The Double Marriage.
Love Me Little, Lovo Me Long.
Foul Play.
The Cloister and the Hearth.
The Course of True Love.
Autobiography of a Thief.
A Terrible Temptation.
The Wandering Heir.
A Simpleton. | A Woman-Hater
Readiana. | The Jilt.
Singleheart and Doubleface.
Good Stories of Men and other
Animals.

BY MRS. J. H. RIDDELL.

Her Mother's Darling.
Prince of Wales's Garden Party.
Weird Stories. | Fairy Water.
The Uninhabited House.
The Mystery in Palace Gardens.

BY F. W. ROBINSON.

Women are Strange.
The Hands of Justice.

CHEAP POPULAR NOVELS, continued—

BY JAMES RUNCIMAN.

Sklppors and Sholbaeks.

Graee Balmalgn's Sweetheart.

Schools and Scholars.

BY IV. CLARK RUSSELL.

Round the Galley Flo.

On tho Fo'k'slo Head.

In tho Middlo Watch.

A Voyago to the Cape.

A Book for tho Hammock.

BY BAYLE ST. JOHN.

A Levantno Family.

BY GEORGE AUGUSTUS SALA.

Gaslight and Daylight.

BY JOHN SAUNDERS.

Bound to the Wheel.

Ono Against the World.

Guy Waterman. | Two Dreamers.

Tho Lion In the Path.

BY KATHARINE SAUNDERS.

Joan Merryweather. | The High Mills.

Margaret and Elizabeth.

Heart Salvage. | Sebastian.

BY GEORGE R. SIMS.

Rogues and Vagabonds.

The Ringo' Bells. | Mary Jane Married.

Mary Jane's Memoirs.

Tales of To-day.

BY ARTHUR SKETCHLEY.

A Match In tho Dark.

BY T. W. SPEIGHT.

The Mysterles of Heron Dyka.

The Golden Hoop. | By Devious Ways.

BY R. A. STERNDAL.

The Afghan Knife.

BY R. LOUIS STEVENSON.

New Arabian Nights. | Prince Otto.

BY BERTHA THOMAS.

Cressida. | Proud Malsie.

The Violin-Player.

BY W. MOY THOMAS.

A Flight for Life.

BY WALTER THORNBURY.

Tales for the Marines.

Old Stories Re-told.

BY T. ADOLPHUS TROLLOPE.

Diamond Cut Diamond.

BY ANTHONY TROLLOPE.

The Way Wo Live Now.

The American Senator.

Frau Frohmann. | Marlon Fay.

Kept in the Dark.

Mr. Scarborough's Family.

The Land-Leaguers. | John Caldgate

The Golden Lion of Granpere.

BY F. ELEANOR TROLLOPE.

Like Ships upon the Sea.

Anne Furness. | Mabel's Progress.

BY J. T. TROWBRIDGE.

Farnell's Folly.

BY IVAN TURGENIEFF, &c.

Stories from Foreign Novelists.

BY MARK TWAIN.

Tom Sawyer. | A Tramp Abroad.

The Stolen White Elephant.

CHEAP POPULAR NOVELS, continued—

MARK TWAIN, continued.

A Pleasuro Trip on the Continent
Huckleberry Finn. [of Europo.

Life on tho Mississlppi.

The Prince and the Pauper.

BY C. C. FRASER-TYTTLER.

Mistress Judith.

BY SARAH TYTLER.

What She Camo Through.

Tho Bride's Pass. | Burled Dlamonds.

Saint Mungo's City.

Beauty and the Beast.

Lady Bell. | Noblesse Oblige.

Citoyenne Jacquellne | Disappeared

The Huguenot Family.

BY J. S. WINTER.

Cavalry Life. | Regimental Legends

BY H. F. WOOD.

The Passenger from Scotland Yard.

BY LADY WOOD.

Sabina.

BY CELIA PARKER WOOLLEY.

Rachel Armstrong; or, Love & Theology.

BY EDMUND YATES.

The Forlorn Hope. | Land at Last.

ANONYMOUS.

Paul Ferroll.

Why Paul Ferroll Killed his Wife.

POPULAR SHILLING BOOKS.

Jeff Brigg's Love Story. By BRET

HARTE. [Ditto.

The Twins of Table Mountain. By

A Day's Tour. By PERCY FITZGERALD.

Mrs. Gainsborough's Diamonds. By

JULIAN HAWTHORNE.

A Dream and a Forgettling. By ditto.

A Romance of the Queen's Hounds.

By CHARLES JAMES. [BURNETT.

Kathleen Mavourneen. By Mrs.

Lindsay's Luck. By Mrs. BURNETT.

Pretty Polly Pemberton. By Ditto.

Trooping with Crows. By C. L. PIRKIS

The Professor's Wife. By L. GRAHAM.

A Double Bond. By LINDA VILLARI.

Esther's Glove. By R. E. FRANCILLON.

The Garden that Paid the Rent

By TOM JERROLD.

Curly. By JOHN COLEMAN. Illus-

trated by J. C. DOLLMAN.

Beyond the Gates. By E. S. PHELPS

Old Mald's Paradise. By E. S. PHELPS.

Burglars In Paradise. By E. S. PHELPS.

Jack the Fisherman. By E. S. PHELPS.

Doom: An Atlantic Episode. By

JUSTIN H. MCCARTHY, M.P.

Our Sensation Novel. Edited by

JUSTIN H. MCCARTHY, M.P.

Dolly. By ditto. [WORTH.

That Girl in Black. By Mrs. MOLES-

Was She Good or Bad? By W. MINTO.

Bible Characters. By CHAS. READE.

The Dagonet Reciter. By G. R. SIMS.

Wife or No Wife? By T. W. SPEIGHT.

The Silverado Squatters. By R.

LOUIS STEVENSON.







